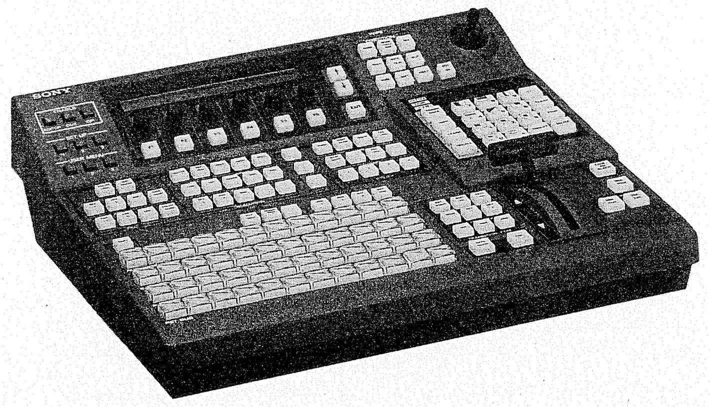
SONY®

SWITCHER CONTROL PANEL

BKDS-2010



MAINTENANCE MANUAL Part2
1st Edition
Serial No. 10001 and Higher

For customers in the USA

WARNING
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of the FCC Rules.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: Using this unit at a voltage other than 120 V may require the use of a different line cord or attachment plug, or both. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel.

Bescheinigung des Herstellers
Hiermit wird bescheinigt, daß das Schalteinheit-Steuerpult BKDS-2010 in Übereinstimmung mit den Bestimmungen der BMPT-Amtsblatt Vfg 243/1991 und Vfg 46/1992 funkenstört ist. Der vorschriftsmäßige Betrieb mancher Geräte (z.B. Meßsender) kann allerdings gewissen Einschränkungen unterliegen. Beachten Sie deshalb die Hinweise in der Bedienungsanleitung. Dem Bundesamt für Zulassungen in der Telekommunikation wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

Sony Deutschland GmbH
Hugo Eckener Str. 20
50829 Köln

Hinweis
Gemäß der Amtsblätter des BMPT Nrn. 61/1991 und 6/1992 wird der Betreiber darauf aufmerksam gemacht, daß die von ihm mit diesem Gerät zusammengestellte Anlage auch den technischen Bestimmungen dieser Amtsblätter genügen muß.

Note
The socket-outlet shall be installed near the equipment and shall be easily accessible.

Hinweis
Zur Trennung vom Netz ist der Netzstecker aus der Steckdose zu ziehen, welche sich in der Nähe des Gerätes befinden muß und leicht zugänglich sein soll.

VORSICHT
Um Feuergefahr und die Gefahr eines elektrischen Schlages zu vermeiden, darf das Gerät weder Regen noch Feuchtigkeit ausgesetzt werden.

Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur einem Fachmann.

For customers in Canada
This apparatus complies with the Class A limits for radio noise emissions set out in Radio Interference Regulations.

Pour les utilisateurs au Canada
Cet appareil est conforme aux normes Classe A pour bruits radioélectriques, spécifiées dans le Règlement sur le brouillage radioélectrique.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

Check the metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 3.5mA. Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 5.25V so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 20V AC range are suitable. (See Fig. A)

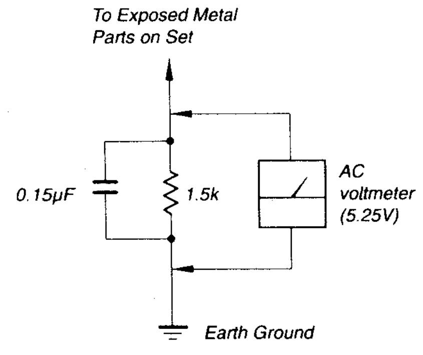


Fig. A. Using an AC voltmeter to check AC leakage.

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このマニュアルについて

本書の目的

本書はデジタルビデオスイッチャDVS-2600のコントロールパネルBKDS-2010のメンテナンスマニュアルです。
本書は、部品レベルまでのサービスを前提とした情報（マウント図、回路図、詳細パーツリスト）を記載しています。

構成

本書の構成を把握していただくために、全章の概略を以下に説明します。

メンテナンスマニュアル　パート２
SEC.1 BLOCK DIAGRAMS
本機全体、およびプリント基板ごとの機能構成をアルファベット順に掲載しています。
SEC.2 BOARD LAYOUTS AND SCHEMATIC DIAGRAMS
全プリント基板のパターンとシンボル図、回路図をアルファベット順に掲載しています。フレーム回路図は、本章の最後の部分にあります。
SEC.3 SEMICONDUCTOR PIN ASSIGNMENTS
使用半導体の外形、およびICについては概略の機能ブロックや、ピン名称を掲載しています。
SEC.4 SPARE PARTS AND FIXTURES
使用部品のうち、サービス対象に指定されている部品や、必要な工具類などを掲載しています。

メンテナンスマニュアル　パート１
第１章　DVS-2600サービスインフォメーション
第２章　BKDS-2010サービスインフォメーション
第３章　トラブルシューティング

注意： DVS-6000/6000C/2600/2600C/2100Cインストレーションアンドメンテナンスマニュアル　パート２について
DVS-2600プロセッサについては、部品レベルまでのサービスを前提とした情報を記載したマニュアルがあります。
このマニュアルはDVS-6000/6000C/2600/2600C/2100C共通です。

Introducing this manual;

Purpose of this manual

This manual is the Maintenance Manual of the control panel BKDS-2010 for the digital video switcher DVS-2100C.
This manual contains the information (board layouts, schematic diagrams and parts list) required for servicing by components.

Contents:

Maintenance Manual Part2

SEC.1 BLOCK DIAGRAMS
Describes functions of each circuit board in the form of block diagrams in the alphabetical order.
SEC.2 BOARD LAYOUTS AND SCHEMATIC DIAGRAMS
Describes printed circuit patterns and their printed symbols and schematic diagrams of all printed circuit board in the alphabetical order. Frame schematic diagram is shown in the end of this section.
SEC.3 SEMICONDUCTOR PIN ASSIGNMENTS
Describes all semiconductors using this unit. Refer to DVS-6000/6000C/2600/2600C/2100C Installation and Maintenance Manual Part2 for the common semiconductors with DVS-2100C.
SEC.4 SPARE PARTS AND FIXTURES
Describes the service parts and required fixtures.

Maintenance Manual Part1

Section 1. DVS-2100C SERVICE INFORMATION
Section 2. BKDS-2010 SERVICE INFORMATION
Section 3. TROUBLE SHOOTING

Note: For DVS-6000/6000C/2600/2600C/2100C Installation and Maintenance Manual Part2
That manual contains the information required for servicing by components of the processor DVS-2100C.
This manual is used for DVS-6000/6000C/2600/2600C/2100C in common.

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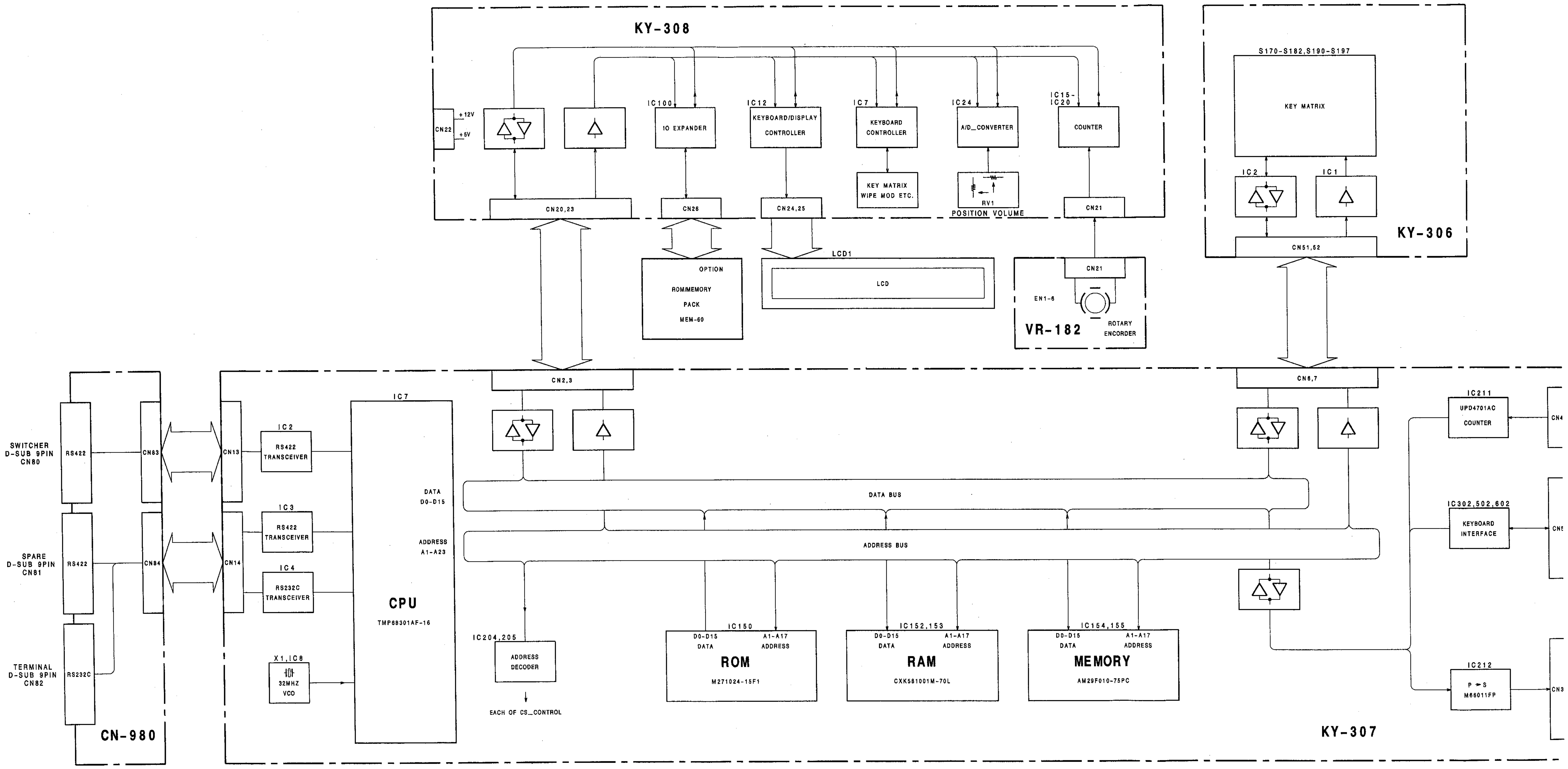
SECTION 1
BLOCK DIAGRAMS

OVERALL


KY-308
CN22
+12V
+5V
IC100
IO EXPANDER
IC12
KEYBOARD/DISPLAY CONTROLLER
IC7
KEYBOARD CONTROLLER
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UPD4701AC COUNTER
CN4
IC302,502,602
KEYBOARD INTERFACE
CN5
IC212
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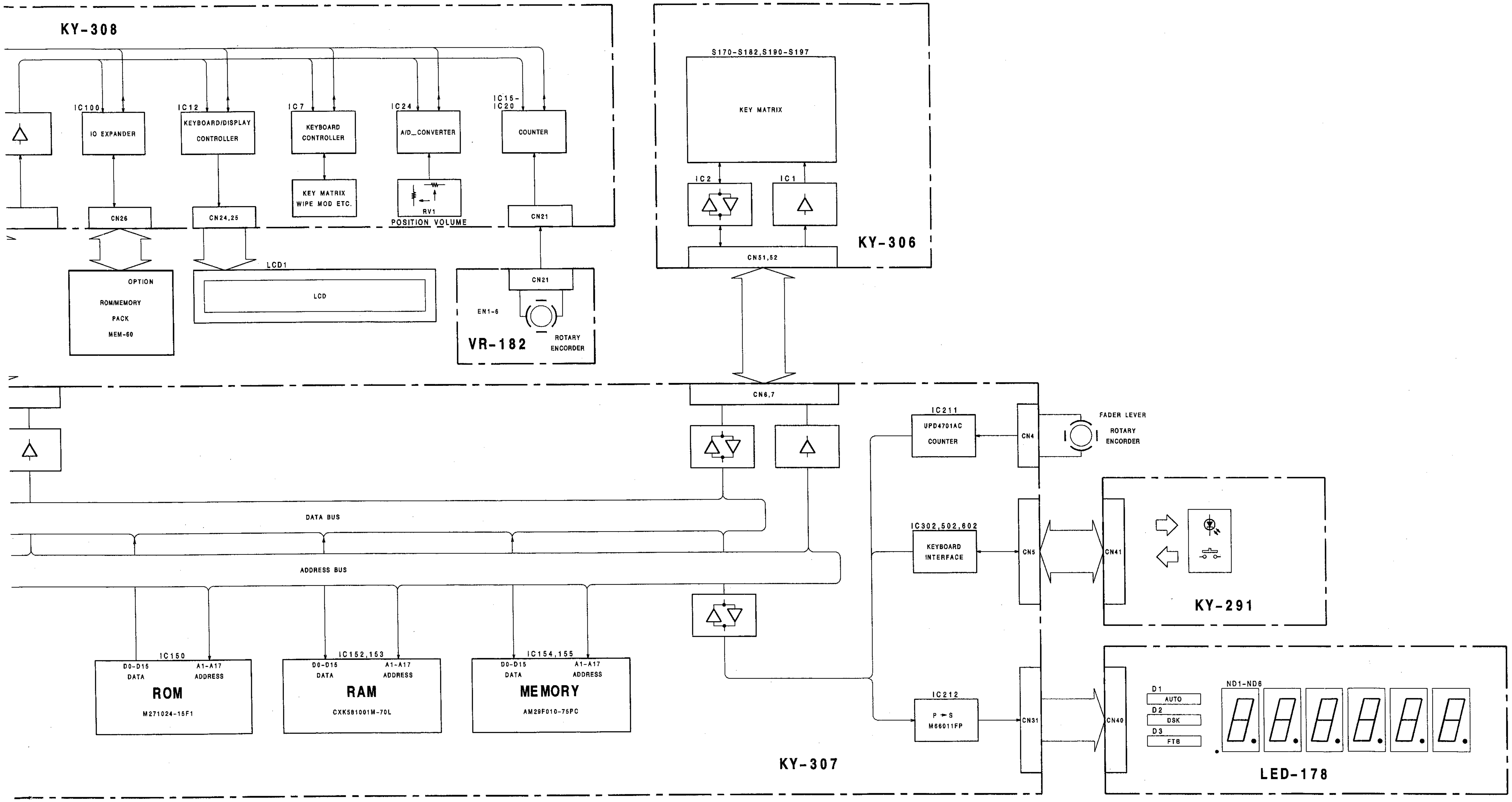
M66011FP
CN3
KY-307


KY-308
IC100
IO EXPANDER
IC12
KEYBOARD/DISPLAY CONTROLLER
IC7
KEYBOARD CONTROLLER
IC24
A/D_CONVERTER
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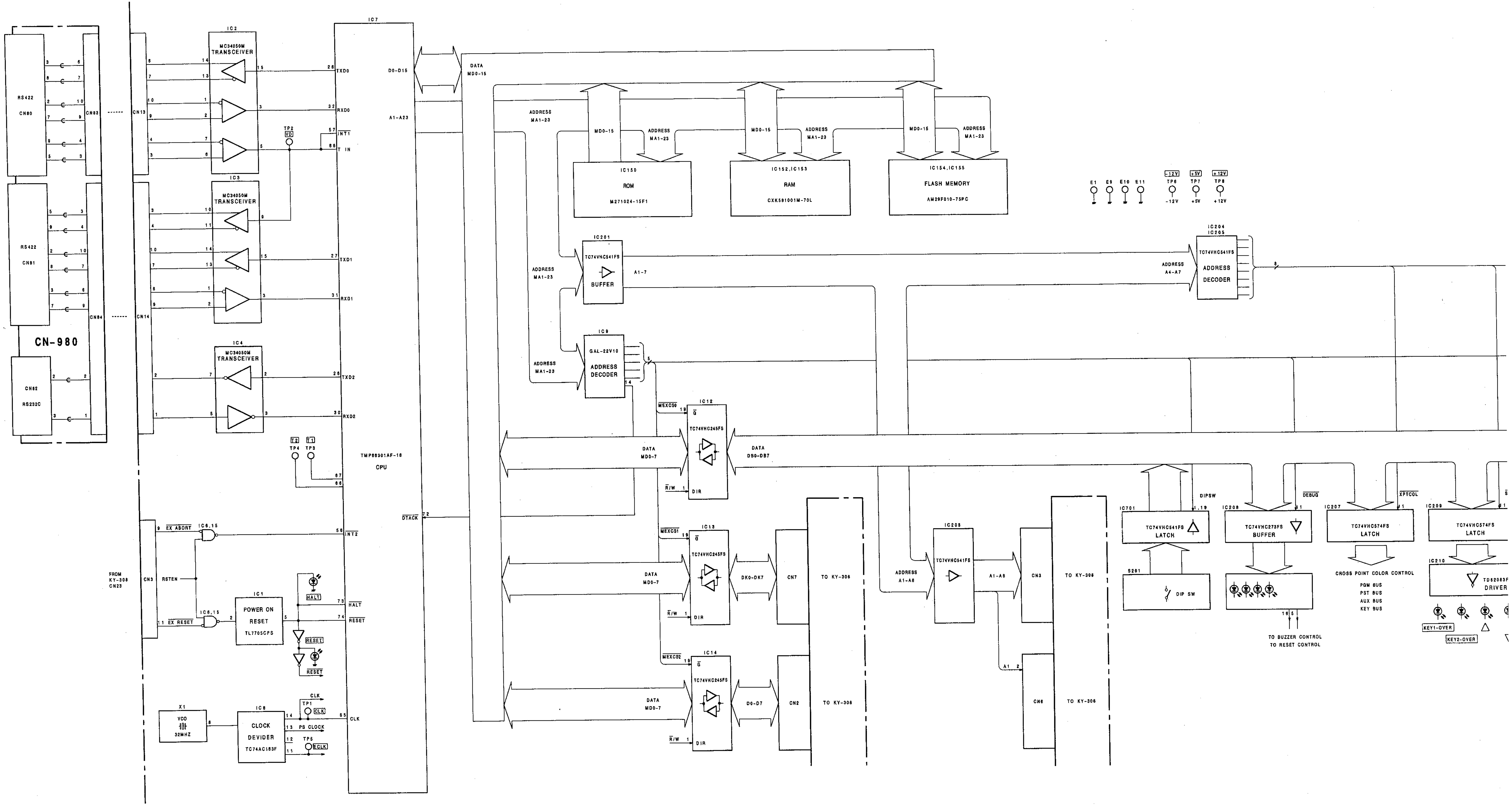
OVERALL
BKDS-2010

KY-307 ;SWITCH
CN-980 ;CONNECTOR
KY-291 ;SETUP SWITCH
LED-178;LED



RS422
CN80
RS422
CN81
CN82
RS232C
CN83
CN84
CN-980
CN13
CN14
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TRANSCEIVER
IC3
MC34050M
TRANSCEIVER
IC4
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+12V
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TP7
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PST BUS
AUX BUS
KEY BUS
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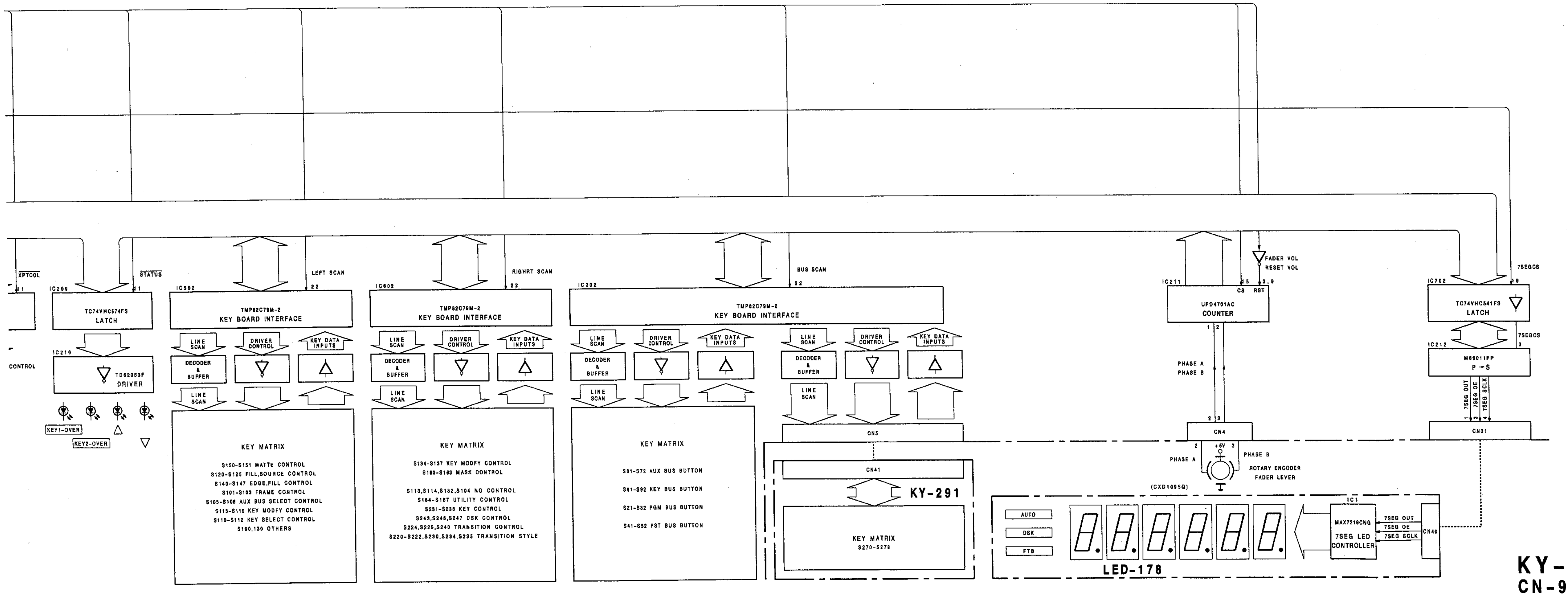
TC74VHC574FS
LATCH
IC210
TD62083F
DRIVER
KEY1-OVER
KEY2-OVER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PHASE B
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FADER LEVER
(CXD1095Q)
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7SEGCS
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7SEG OE
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3
4
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DSK
FTB
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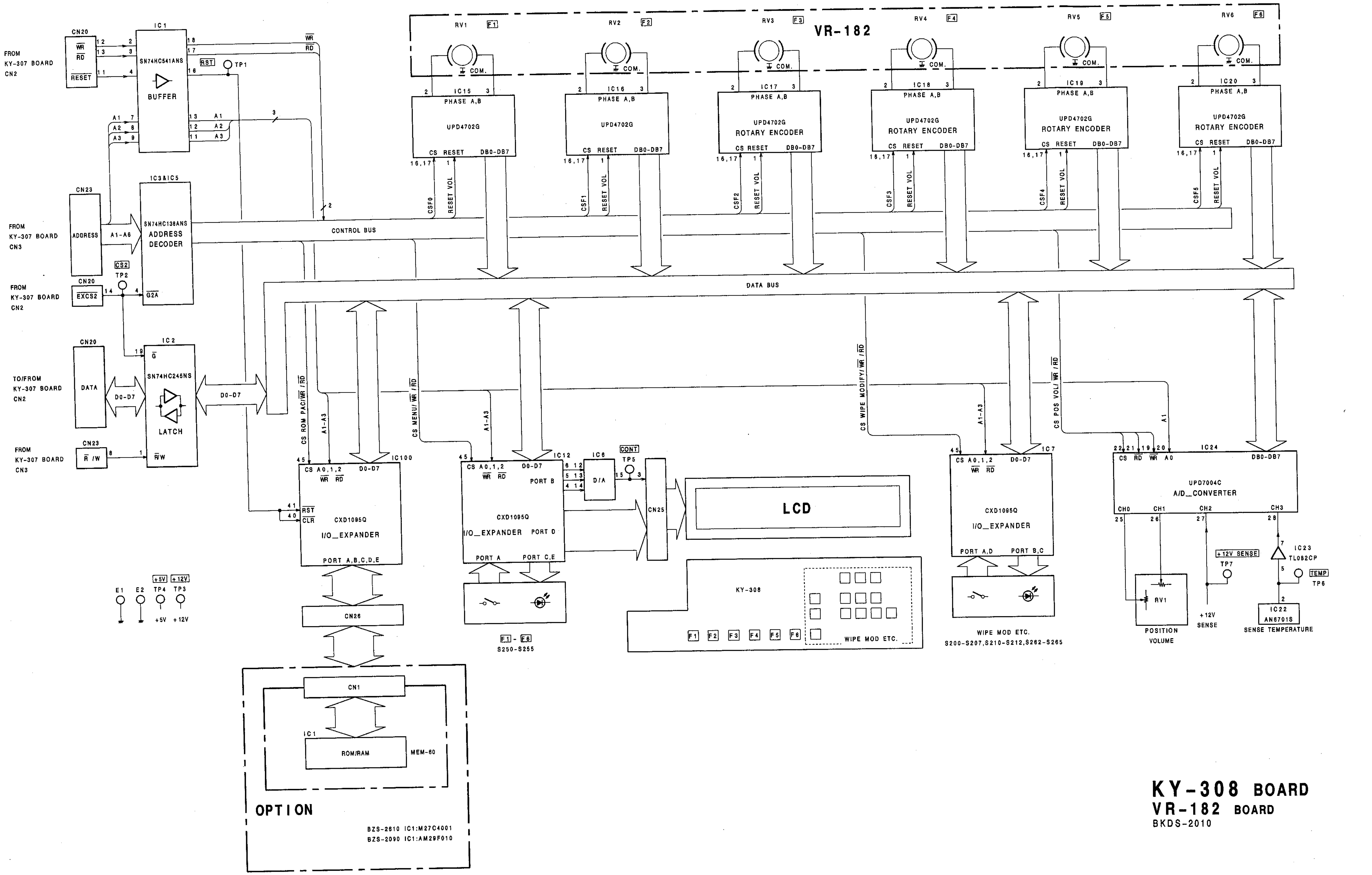
7SEG OUT
7SEG OE
7SEG SCLK
CN40

KY-307 BOARD
CN-980 BOARD
KY-291 BOARD
LED-178 BOARD
BKDS-2010

KY-308;FUNCTION SWITCH
VR-182;VOLUME


FROM
KY-307 BOARD
CN2
CN20
WR
RD
RESET
IC1
SN74HC541ANS
BUFFER
RST
TP1
A1
A2
A3
CN23
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A1-A6
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SN74HC138ANS
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EXCS2
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PORT B,C
WIPE MOD ETC.
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TP7
+12V
SENSE
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TL082CP
TEMP
TP6
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AN6701S
SENSE TEMPERATURE
+5V +12V
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+5V +12V
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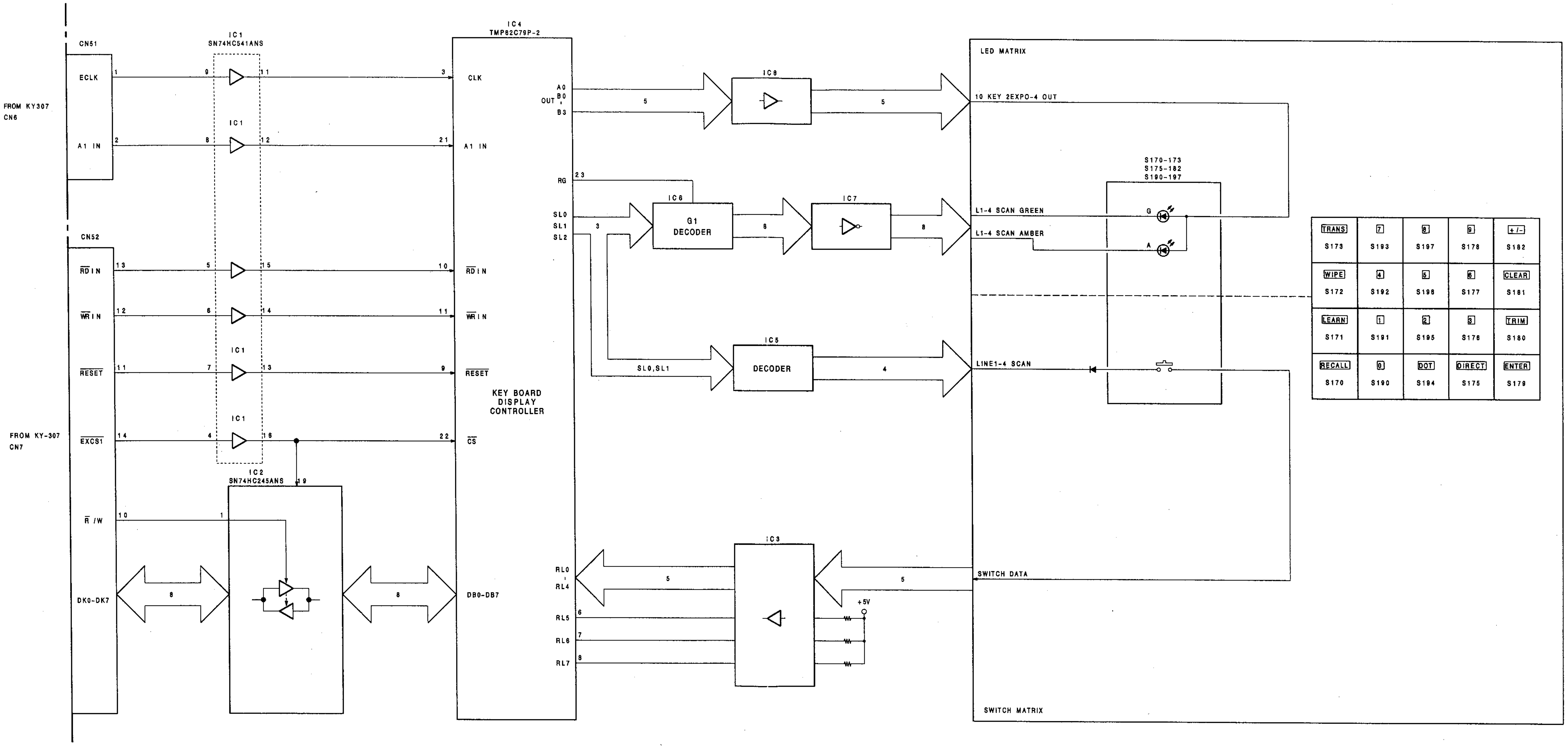
BZS-2090 IC1:AM29F010

KY-308 BOARD
VR-182 BOARD
BKDS-2010

KY-306;10 KEY SWITCH


FROM KY307
CN6
CN51
ECLK
A1 IN
CN52
FROM KY-307
CN7
RD IN
WR IN
RESET
EXCS1
R /W
DK0-DK7
IC1
SN74HC541ANS
IC1
IC1
IC1
IC2
SN74HC245ANS
8
IC4
TMP82C79P-2
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RD IN
WR IN
RESET
CS
KEY BOARD
DISPLAY
CONTROLLER
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OUT B0
B3
RG
SL0
SL1
SL2
RL0
RL4
RL5
RL6
RL7
IC8
IC6
G1
DECODER
IC7
IC5
DECODER
SL0,SL1
IC3
+5V
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L1-4 SCAN AMBER
LINE1-4 SCAN
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S193
8
S197
9
S178
+/-
S182
WIPE
S172
4
S192
5
S196
6
S177
CLEAR
S181
LEARN
S171
1
S191
2
S195
3
S176
TRIM
S180
RECALL
S170
0
S190
DOT
S194
DIRECT
S175
ENTER
S179

KY-306 BOARD
BKDS-2010

KY-307;Switch Board

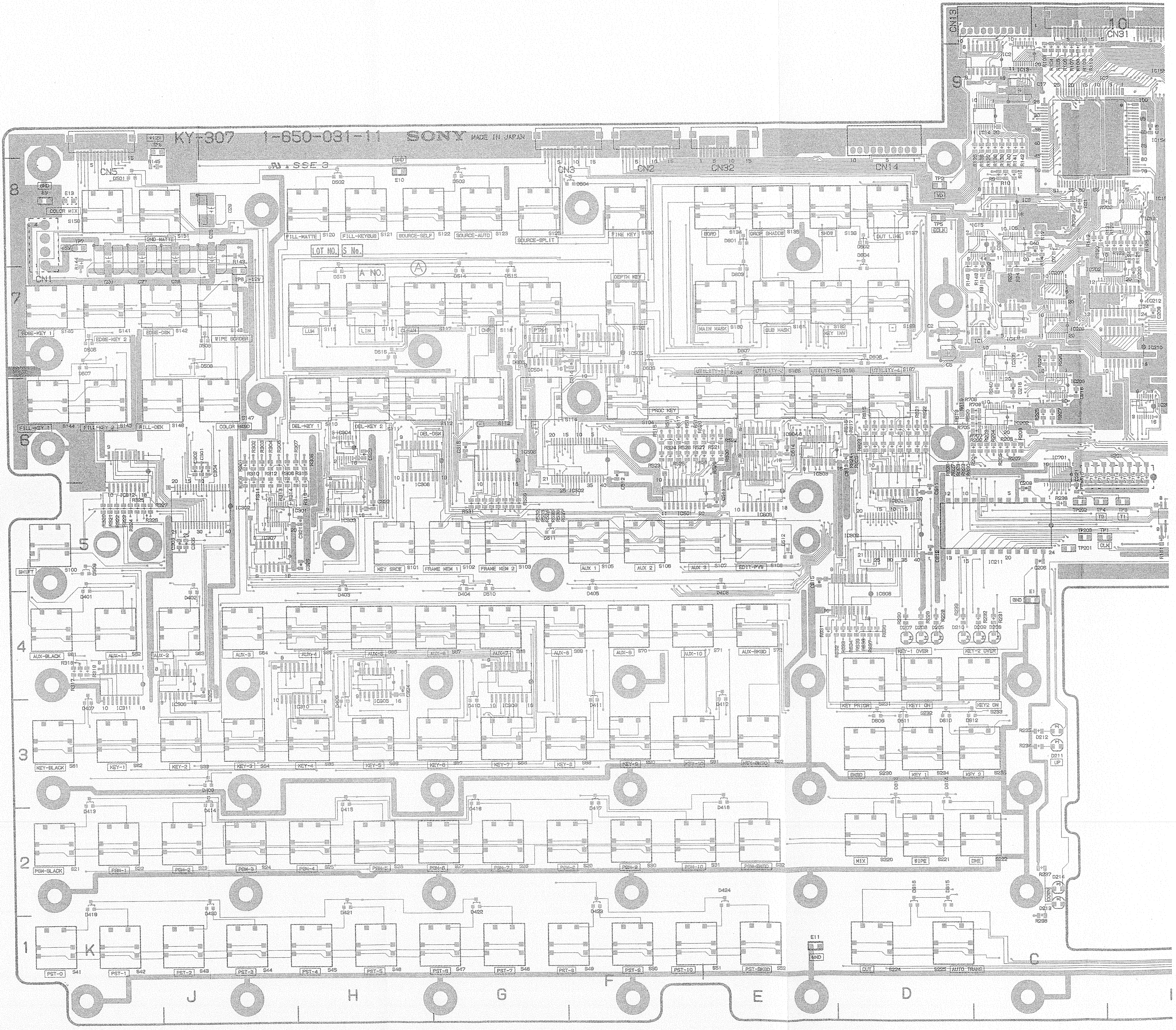
S43	J-1
S44	J-1
S45	H-1
S46	H-1
S47	G-1
S48	G-1
S49	F-1
S50	F-1
S51	E-1
S52	E-1
S61	K-4
S62	K-4
S63	J-4
S64	J-4
S65	H-4
S66	H-4
S67	G-4
S68	G-4
S69	F-4
S70	F-4
S71	E-4
S72	E-4
S81	K-3
S82	K-3
S83	J-3
S84	J-3
S85	H-3
S86	H-3
S87	G-3
S88	G-3
S89	F-3
S90	F-3
S91	E-3
S92	E-3
S100	K-5
S101	H-5
S102	G-5
S103	G-5
S104	F-6
S105	F-5
S106	F-5
S107	E-5
S108	E-5
S110	H-6
S111	H-6
S112	G-6
S113	G-6
S114	F-6
S115	H-7
S116	H-7
S117	G-7
S118	G-7
S119	F-7
S120	H-8
S121	H-8
S122	G-8
S123	G-8
S125	G-8
S130	F-8
S132	F-7
S134	E-8
S135	E-8
S136	D-8
S137	D-8
S140	K-7
S141	K-7
S142	J-7
S143	J-7
S144	K-6
S145	K-6
S146	J-6
S147	J-6
S150	K-8
S151	J-8
S160	E-7
S161	E-7
S162	D-7
S163	D-7
S164	E-6
S165	E-6
S166	D-6
S167	D-6
S201	*B-6

S224	D-1
S225	D-1
S230	D-3
S231	D-3
S232	D-3
S233	C-3
S234	D-3
S235	C-3
S240	A-4
S243	A-3
S246	A-2
S247	A-2
TP1	B-5
TP2	D-8
TP3	B-5
TP4	B-5
TP5	D-8
TP6	J-7
TP7	K-8
TP8	J-9
TP201	C-5
TP202	C-5
TP203	C-5
X1	A-5

*;B SIDE

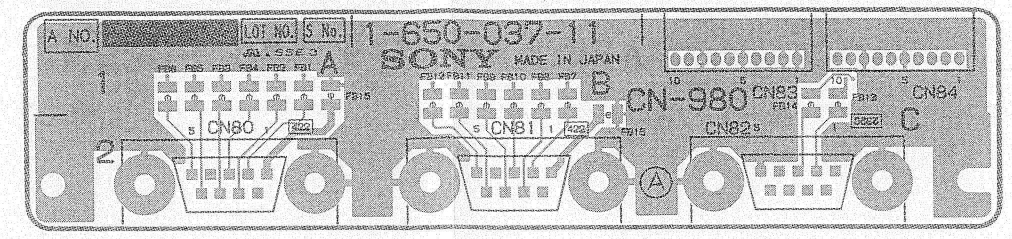
CN-980(1-650-037-11)

CN80	A-2
CN81	B-2
CN82	C-2
CN83	C-1
CN84	C-1
FB1	A-1
FB2	A-1
FB3	A-1
FB4	A-1
FB5	A-1
FB6	A-1
FB7	B-1
FB8	B-1
FB9	B-1
FB10	B-1
FB11	B-1
FB12	B-1
FB13	C-1
FB14	C-1
FB15	B-1
FB16	B-2

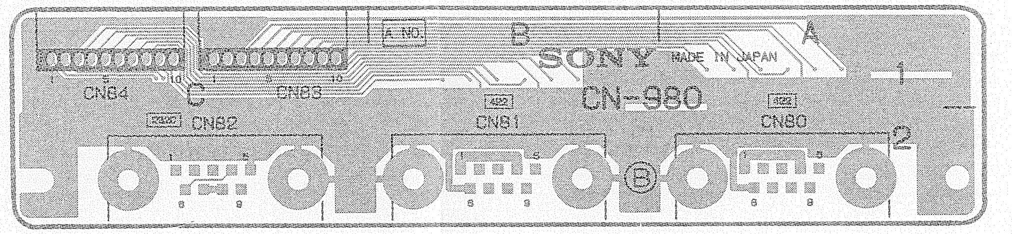

KY-307 1-650-031-11 SONY MADE IN JAPAN
CN1
CN5
CN3
CN2
CN32
CN14
CN13
CN31
COLOR MIX
2ND MATTE
FILL-MATTE
FILL-KEYBUS
SOURCE-SELF
SOURCE-AUTO
SOURCE-SPLIT
FINE KEY
BORD
DROP SHADOW
SHOE
OUT LINE
LOT NO.
S No.
A NO.
DEPTH KEY
EDGE-KEY 1
EDGE-KEY 2
EDGE-DSK
WIPE BORDER
LUM
LIN
CLEAN
CHR
PTN
MAIN MASK
SUB MASK
KEY INV
FILL-KEY 1
FILL-KEY 2
FILL-DSK
COLOR BKGD
DEL-KEY 1
DEL-KEY 2
DEL-DSK
PROC KEY
UTILITY-1
UTILITY-2
UTILITY-3
UTILITY-4
SHIFT
KEY SRCE
FRAME MEM 1
FRAME MEM 2
AUX 1
AUX 2
AUX 3
EDIT-PVW
AUX-BLACK
AUX-1
AUX-2
AUX-3
AUX-4
AUX-5
AUX-6
AUX-7
AUX-8
AUX-9
AUX-10
AUX-BKGD
KEY-1 OVER
KEY-2 OVER
KEY-BLACK
KEY-1
KEY-2
KEY-3
KEY-4
KEY-5
KEY-6
KEY-7
KEY-8
KEY-9
KEY-10
KEY-BKGD
KEY PRIOR
KEY1 ON
KEY2 ON
BKGD
KEY 1
KEY 2
UP
PGM-BLACK
PGM-1
PGM-2
PGM-3
PGM-4
PGM-5
PGM-6
PGM-7
PGM-8
PGM-9
PGM-10
PGM-BKGD
MIX
WIPE
DME
DOWN
PST-0
PST-1
PST-2
PST-3
PST-4
PST-5
PST-6
PST-7
PST-8
PST-9
PST-10
PST-BKGD
CUT
AUTO TRANS
GND
1
2
3
4
5
6
7
8
9
10
K
J
H
G
F
E
D
C

CN-980,KY-307 KY-307,CN-980

CN-980;Connector Board

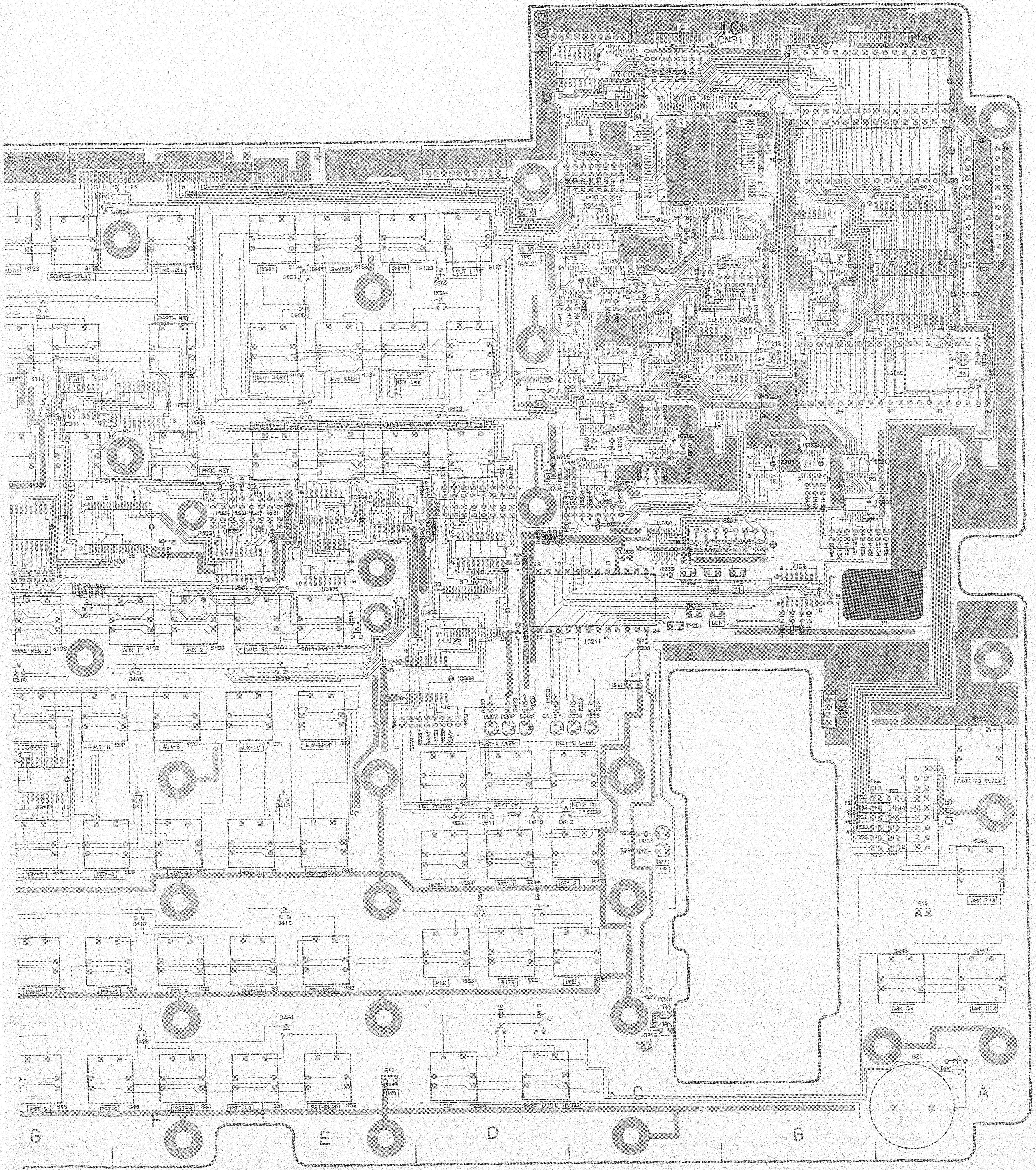

1-650-037-11
SONY
MADE IN JAPAN
CN-980
CN80
CN81
CN82
CN83
CN84
A
B
C

CN-980 -A SIDE-


SONY
MADE IN JAPAN
CN-980
CN80
CN81
CN82
CN83
CN84
A
B
C

CN-980 -B SIDE-

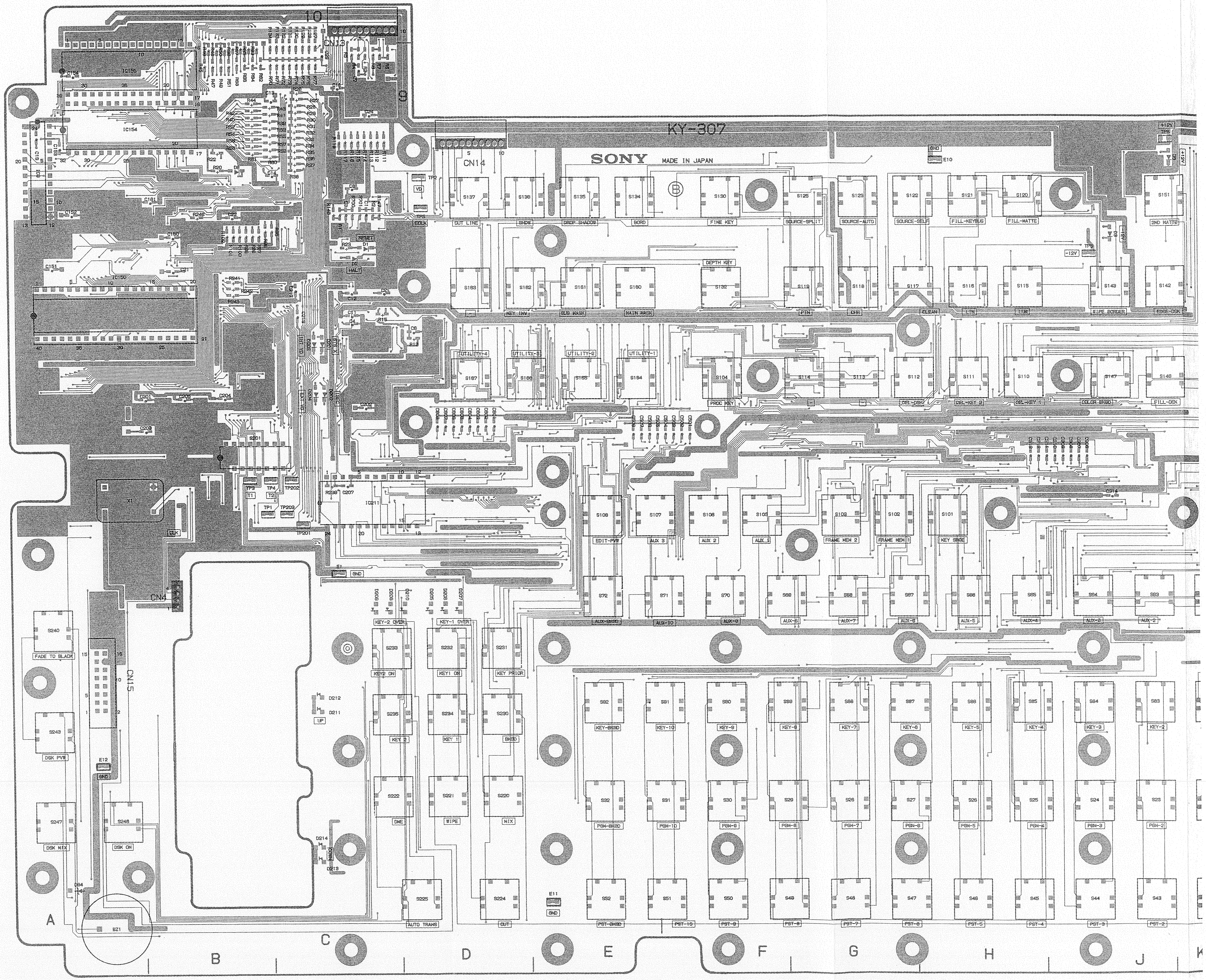
1-650-037-11
BKDS-2010

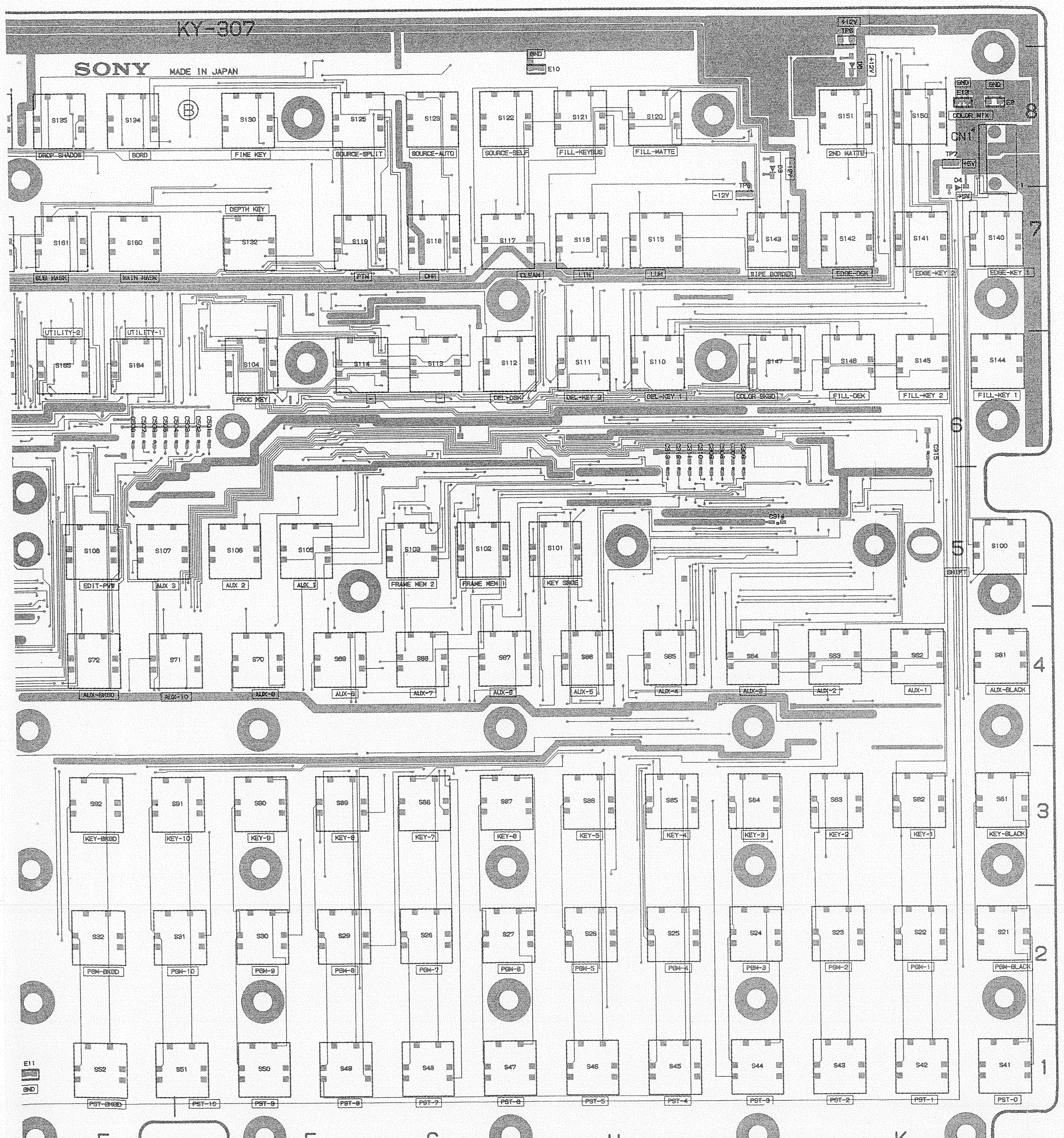

CN13
CN31
CN7
CN6
CN3
CN2
CN32
CN14
CN4
CN5
FADE TO BLACK
DSK PVW
DSK ON
DSK MIX
MIX
WIPE
DME
CUT
AUTO TRANS
KEY PRIOR
KEY1 ON
KEY2 ON
BKGD
KEY 1
KEY 2
KEY-1 OVER
KEY-2 OVER
SOURCE-SPLIT
FINE KEY
DEPTH KEY
MAIN MASK
SUB MASK
KEY INV
PROC KEY
UTILITY-1
UTILITY-2
UTILITY-3
UTILITY-4
EDIT-PVW
A
B
C
D
E
F
G

KY-307 -A SIDE-

1-650-031-11
BKDS-2010

KY-307;Switch Board


KY-307
SONY
MADE IN JAPAN
CN13
CN14
CN15
CN4
IC155
IC154
IC150
IC211
X1
BZ1
RESET
HALT
GND
+12V
-12V
OUT LINE
SHOW
DROP SHADOW
BORD
FINE KEY
SOURCE-SPLIT
SOURCE-AUTO
SOURCE-SELF
FILL-KEYBUS
FILL-MATTE
2ND MATTE
DEPTH KEY
KEY INV
BUS MASK
MAIN MASK
PTN
CLEAN
LIN
LUM
WIPE BORDER
EDGE-DSK
UTILITY-4
UTILITY-3
UTILITY-2
UTILITY-1
PROC KEY
DEL-DSK
DEL-KEY 2
DEL-KEY 1
COLOR BKGD
FILL-DSK
EDIT-PVW
AUX 3
AUX 2
AUX 1
FRAME MEM 2
FRAME MEM 1
KEY SRCE
AUX-BKGD
AUX-10
AUX-9
AUX-8
AUX-7
AUX-6
AUX-5
AUX-4
AUX-3
AUX-2
KEY-2 OVER
KEY-1 OVER
KEY2 ON
KEY1 ON
KEY PRIOR
KEY 2
KEY 1
BKGD
DME
WIPE
MIX
AUTO TRANS
CUT
UP
FADE TO BLACK
DSK PVW
DSK MIX
DSK ON
KEY-BKGD
KEY-10
KEY-9
KEY-8
KEY-7
KEY-6
KEY-5
KEY-4
KEY-3
KEY-2
PGM-BKGD
PGM-10
PGM-9
PGM-8
PGM-7
PGM-6
PGM-5
PGM-4
PGM-3
PGM-2
PST-BKGD
PST-10
PST-9
PST-8
PST-7
PST-6
PST-5
PST-4
PST-3
PST-2
A
B
C
D
E
F
G
H
J
K


KY-307
SONY
MADE IN JAPAN
B
DROP SHADOW
BORD
FINE KEY
SOURCE-SPLIT
SOURCE-AUTO
SOURCE-SELF
FILL-KEYBUS
FILL-MATTE
2ND MATTE
COLOR MTX
CN1
DEPTH KEY
BUS MASK
MAIN MASK
WIPE BORDER
EDGE-DSK
EDGE-KEY 2
EDGE-KEY 1
UTILITY-2
UTILITY-1
PROC KEY
DEL-DSK
DEL-KEY 2
DEL-KEY 1
COLOR BKGD
FILL-DSK
FILL-KEY 2
FILL-KEY 1
EDIT-PVW
AUX 3
AUX 2
AUX 1
FRAME MEM 2
FRAME MEM 1
KEY SIDE
SHIFT
AUX-BKGD
AUX-10
AUX-9
AUX-8
AUX-7
AUX-6
AUX-5
AUX-4
AUX-3
AUX-2
AUX-1
AUX-BLACK
KEY-BKGD
KEY-10
KEY-9
KEY-8
KEY-7
KEY-6
KEY-5
KEY-4
KEY-3
KEY-2
KEY-1
KEY-BLACK
PGM-BKGD
PGM-10
PGM-9
PGM-8
PGM-7
PGM-6
PGM-5
PGM-4
PGM-3
PGM-2
PGM-1
PGM-BLACK
PST-BKGD
PST-10
PST-9
PST-8
PST-7
PST-6
PST-5
PST-4
PST-3
PST-2
PST-1
PST-0
E
F
G
H
J
K
1
2
3
4
5
6
7
8

KY-307 -B SIDE-

1-650-031-11
BKDS-2010

KY-307(1-650-031-11)

BZ1	A-1
CN1	K-7
CN2	F-8
CN3	F-8
CN4	*B-4
CN5	K-8
CN6	A-10
CN7	B-10
CN13	C-10
CN14	D-8
CN31	B-10
CN32	E-8
D1	*C-8
D2	*C-8
D3	*J-8
D4	*K-8
D5	*K-8
D6	*B-8
D7	C-7
D94	A-1
D201	*C-7
D202	*C-6
D203	*C-7
D204	*C-6
D205	D-4
D206	D-4
D207	D-4
D208	C-4
D209	C-4
D210	D-4
D211	C-3
D212	C-3
D213	C-2
D214	C-2
D401	K-4
D402	J-4
D403	H-4
D404	G-4
D405	F-4
D406	E-4
D407	K-3
D408	J-3
D409	H-3
D410	G-3
D411	F-3
D412	E-3
D413	K-2
D414	J-2
D415	H-2
D416	G-2
D417	F-2
D418	E-2
D419	K-1
D420	J-1
D421	H-1
D422	G-1
D423	F-1
D424	E-2
D501	K-8
D502	H-8
D503	G-8
D504	F-8
D505	K-7
D506	J-7
D507	K-7
D508	J-7
D509	K-5
D510	G-4
D511	G-5
D512	E-5
D513	H-7
D514	G-7
D515	G-7
D516	H-7
D601	E-8
D602	D-8
D603	E-7
D604	D-8
D605	G-7
D606	F-7
D607	E-7
D611	D-3
D612	C-3
D613	D-3
D614	D-3
D615	D-2
D616	D-2
E1	C-4
E9	K-8
E10	H-8
E11	E-1
E12	*A-3
E13	*K-8
IC1	C-7
IC2	C-9
IC3	C-8
IC4	C-7
IC6	C-8
IC7	B-9
IC8	B-5
IC9	A-8
IC11	B-7
IC12	B-8
IC13	C-9
IC14	C-9
IC15	C-8
IC150	*A-7
IC151	B-8
IC152	A-7
IC153	A-8
IC154	B-9
IC155	B-9
IC156	B-8
IC201	A-6
IC202	C-6
IC203	A-6
IC204	B-6
IC205	B-6
IC206	C-7
IC207	C-7
IC208	C-6
IC209	C-7
IC210	B-7
IC211	C-5
IC212	B-7
IC301	H-5
IC302	J-5
IC303	H-5
IC304	H-6
IC305	H-3
IC306	J-3
IC307	J-5
IC308	H-5
IC309	G-3
IC310	H-3
IC311	K-3
IC312	K-5
IC501	F-5
IC502	F-5
IC503	E-6
IC504	G-7
IC505	F-7
IC506	G-6
IC601	D-5
IC602	D-5
IC604	E-6
IC605	E-5
IC606	D-4
IC701	C-6
IC702	B-7
S21	K-2
S22	K-2
S23	J-2
S24	J-2
S25	H-2
S26	H-2
S27	G-2
S28	G-2
S29	F-2
S30	F-2
S31	E-2
S43	J-1
S44	J-1
S45	H-1
S46	H-1
S47	G-1
S48	G-1
S49	F-1
S50	F-1
S51	E-1
S52	E-1
S61	K-4
S62	K-4
S63	J-4
S64	J-4
S65	H-4
S66	H-4
S67	G-4
S68	G-4
S69	F-4
S70	F-4
S71	E-4
S72	E-4
S81	K-3
S82	K-3
S83	J-3
S84	J-3
S85	H-3
S86	H-3
S87	G-3
S88	G-3
S89	F-3
S90	F-3
S91	E-3
S92	E-3
S100	K-5
S101	H-5
S102	G-5
S103	G-5
S104	F-6
S105	F-5
S106	F-5
S107	E-5
S108	E-5
S110	H-6
S111	H-6
S112	G-6
S113	G-6
S114	F-6
S115	H-7
S116	H-7
S117	G-7
S118	G-7
S119	F-7
S120	H-8
S121	H-8
S122	G-8
S123	G-8
S125	G-8
S130	F-8
S132	F-7
S134	E-8
S135	E-8
S136	D-8
S137	D-8
S140	K-7
S141	K-7
S142	J-7
S143	J-7
S144	K-6
S145	K-6
S146	J-6
S147	J-6
S150	K-8
S151	J-8
S160	E-7
S161	E-7
S162	D-7
S163	D-7
S164	E-6
S165	E-6
S166	D-6
S167	D-6
S201	*B-6
S224	D-1
S225	D-1
S230	D-3
S231	D-3
S232	D-3
S233	C-3
S234	D-3
S235	C-3
S240	A-4
S243	A-3
S246	A-2
S247	A-2
TP1	B-5
TP2	D-8
TP3	B-5
TP4	B-5
TP5	D-8
TP6	J-7
TP7	K-8
TP8	J-9
TP201	C-5
TP202	C-5
TP203	C-5
X1	A-5

*;B SIDE

KY-308;Function Switch Board

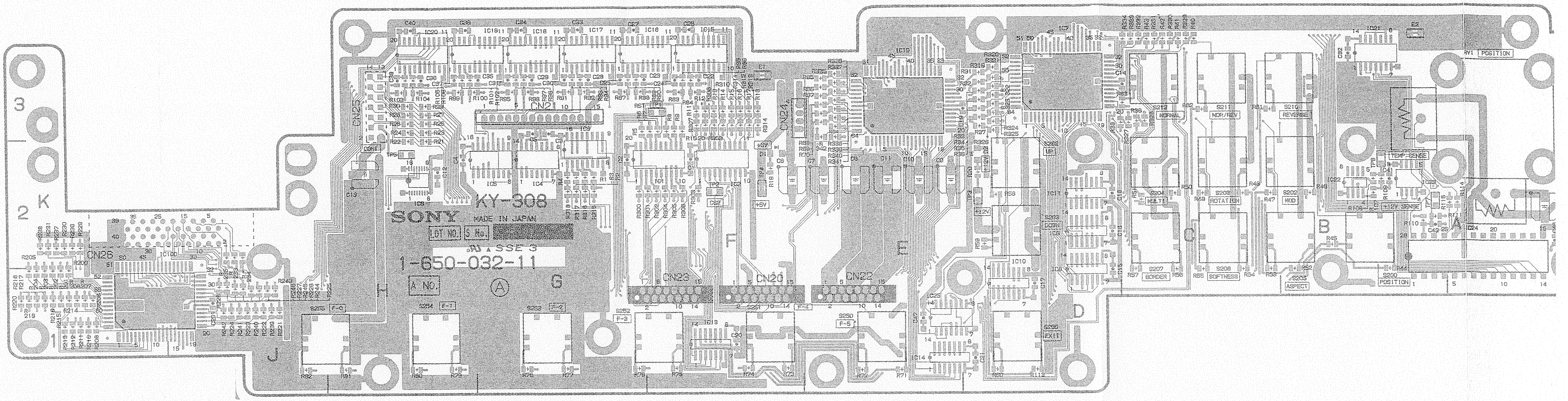
KY-291(1-650-033-11)

CN41	*B-2
D301	D-2
D302	D-3
D303	D-2
D304	D-3
D305	B-3
D306	B-3
S270	D-1
S271	D-2
S272	D-3
S273	C-1
S274	C-2
S275	C-3
S276	A-1
S277	A-2
S278	A-3

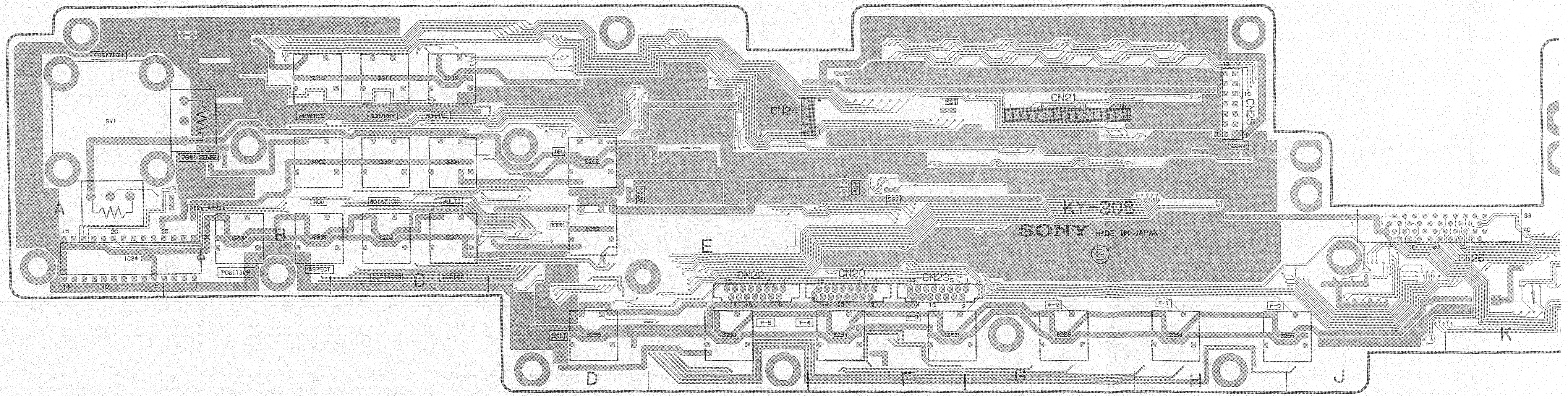
*;B SIDE

VR-182(1-650-035-11)

CN21	B-1
RV1	C-1
RV2	C-1
RV3	B-1
RV4	B-1
RV5	A-1
RV6	A-1

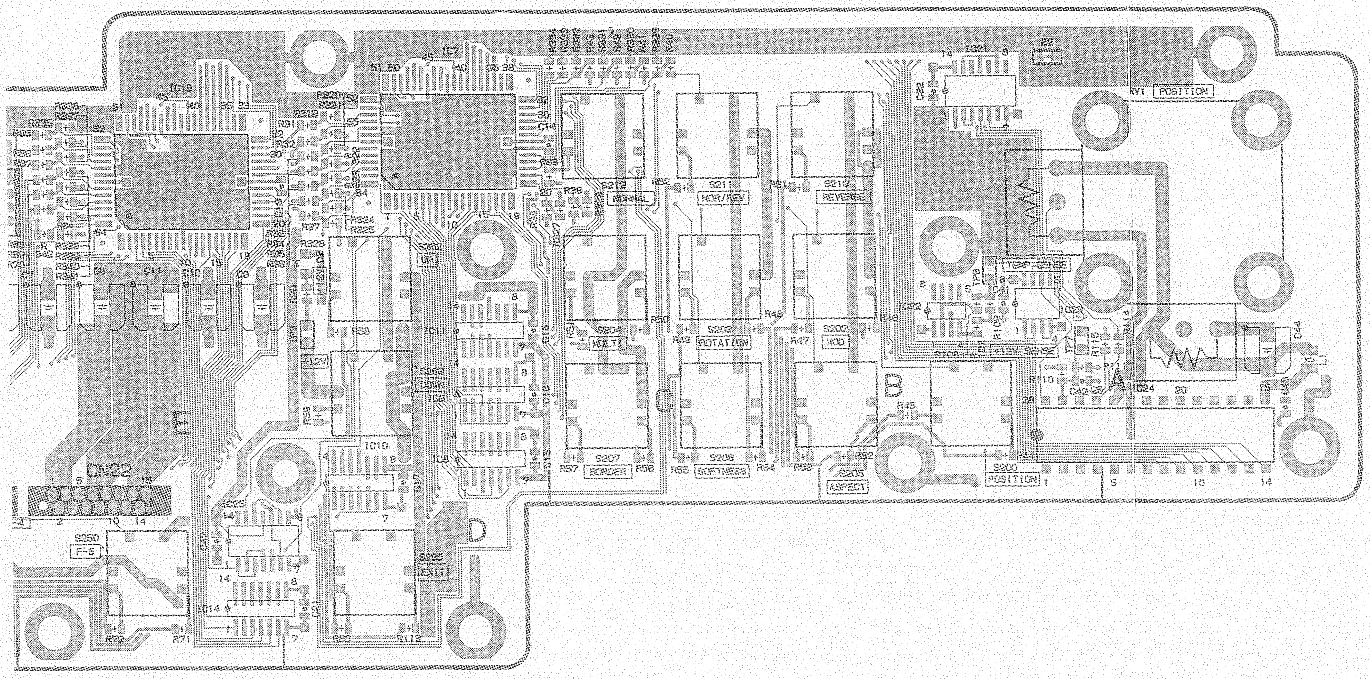

KY-308
SONY
MADE IN JAPAN
1-650-032-11
A
B
C
D
E
F
G
H
J
K
CN20
CN21
CN22
CN23
CN24
CN25
CN26
NORMAL
NOR/REV
REVERSE
MULTI
ROTATION
MOD
BORDER
SOFTNESS
ASPECT
POSITION
TEMP SENSE
EXIT

KY-308-A


KY-308
SONY
MADE IN JAPAN
RV1
POSITION
TEMP SENSE
REVERSE
NOR/REV
NORMAL
MOD
ROTATION
MULTI
ASPECT
SOFTNESS
BORDER
CN20
CN21
CN22
CN23
CN24
CN25
CN26
IC24
EXIT
A
B
C
D
E
F
G
H
J
K

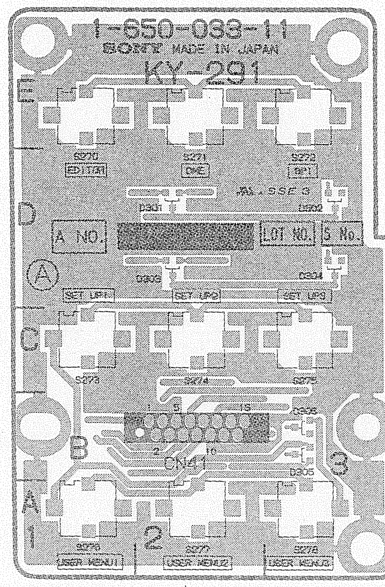
KY-308-B

1-650-032-11
BKDS-2010

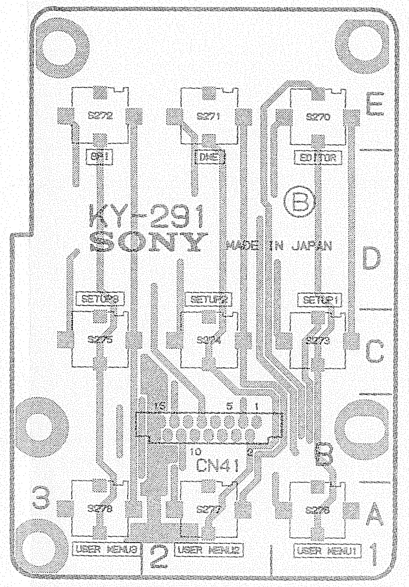

IC12
IC7
IC21
RV1 POSITION
S212 NORMAL
S211 NOR/REV
S210 REVERSE
TEMP-SENSE
S202 UP
S204 MULTI
S209 ROTATION
S202 MOD
+12V SENSE
+12V
S203 DOWN
IC11
IC10
IC8
S207 BORDER
S208 SOFTNESS
S203 ASPECT
S200 POSITION
CN22
S250 F-S
S205 EXIT
IC25
IC14
A
B
C
D
E

KY-308 -A SIDE-

KY-291;Setup Switch Board

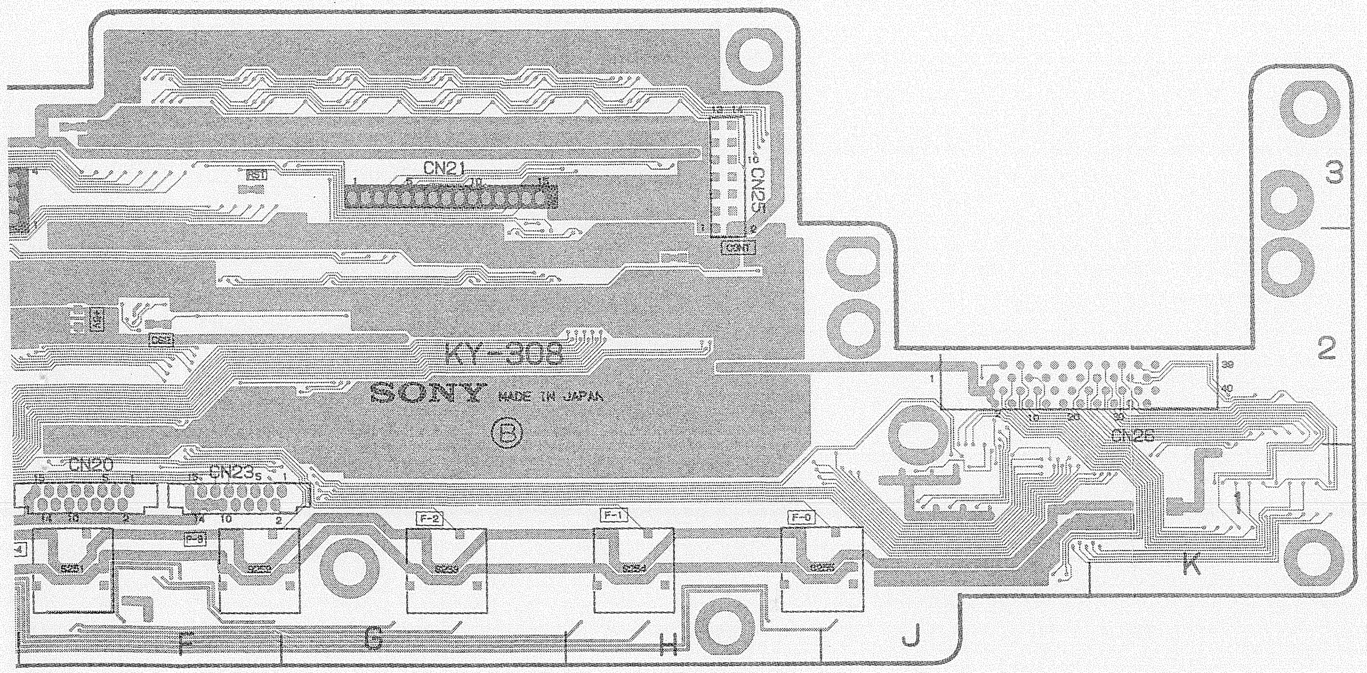

1-650-033-11
SONY MADE IN JAPAN
KY-291
S270 EDITOR
S271 DME
S272 SP1
A NO.
LOT NO.
S No.
SET UP1
SET UP2
SET UP3
S273
S274
S275
CN41
S276 USER MENU1
S277 USER MENU2
S278 USER MENU3
A
B
C
D
E
1
2
3

KY-291 -A SIDE-


S272 SP1
S271 DME
S270 EDITOR
KY-291
SONY MADE IN JAPAN
SETUP3
SETUP2
SETUP1
S275
S274
S273
CN41
S278 USER MENU3
S277 USER MENU2
S276 USER MENU1
A
B
C
D
E
1
2
3

KY-291 -B SIDE-

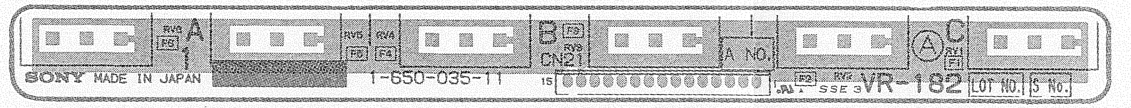
1-650-033-11
BKDS-2010


CN21
CN25
CONT
KY-308
SONY MADE IN JAPAN
CN20
CN23
CN26
F-2
F-1
F-0
S251
S252
S253
S254
S255
F
G
H
J
K
1
2
3

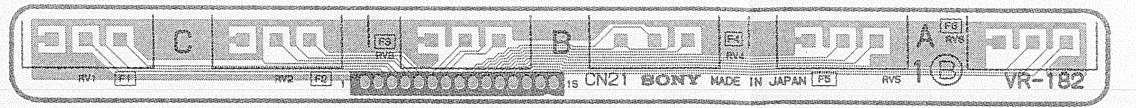
KY-308 -B SIDE-

1-650-032-11
BKDS-2010

VR-182;Volume Board


SONY MADE IN JAPAN
1-650-035-11
CN21
A NO.
VR-182
LOT NO.
S No.
A
B
C
1

VR-182 -A SIDE-


C
B
A
1
CN21
SONY MADE IN JAPAN
VR-182

VR-182 -B SIDE-

1-650-035-11
BKDS-2010

SECTION 2

BOARD LAYOUTS AND SCHEMATIC DIAGRAMS

The circuit informations are provided below

Circuit Board	Circuit Function	Page	
		BOARD LAYOUT	SCHEMATIC DIAGRAM
CN-980	Connector Board	2-2	2-27
KY-291	Setup Switch Board	2-4	2-21
KY-306	10 Key Switch Board	2-5	2-23
KY-307	Switch Board	2-2	2-7
KY-308	Function Switch Board	2-4	2-15
LED-178	LED Board	2-6	2-25
VR-182	Volume Board	2-4	2-27

回路図において、ＲＥＦ．ＮＯの近傍に下記記号が記載されていますが、これは、生産時の部品データです。

In the schematic diagrams,the following marks are described nearby reference number. These are parts data at factory.

CAPACITOR(C)

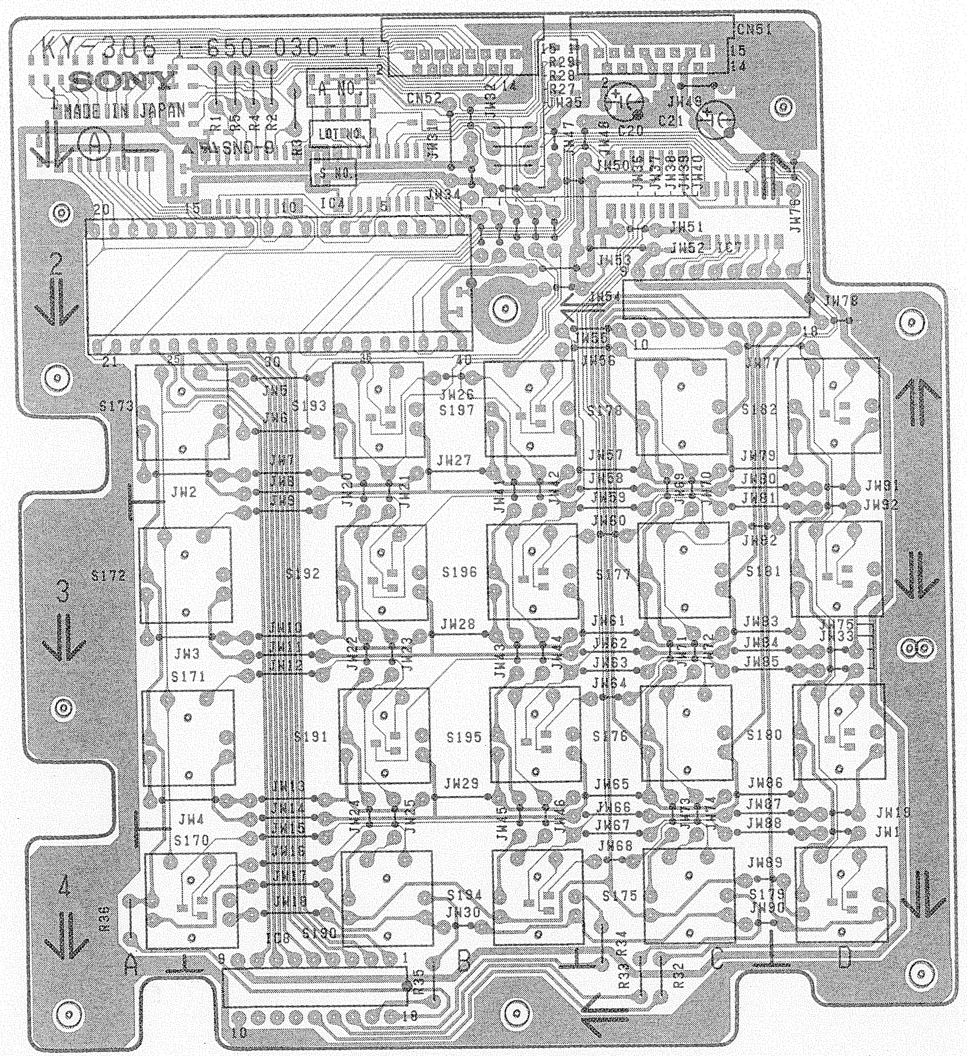
AL	ELECTROLYTIC
AS	
TA	TANTALUM
CA	CERAMIC
CC	
CCS	
CM	
CS	
MPS	MYLAR
PP	
PT	
MD	DIPPED MICA
MS	MICA

RESISTOR(R)

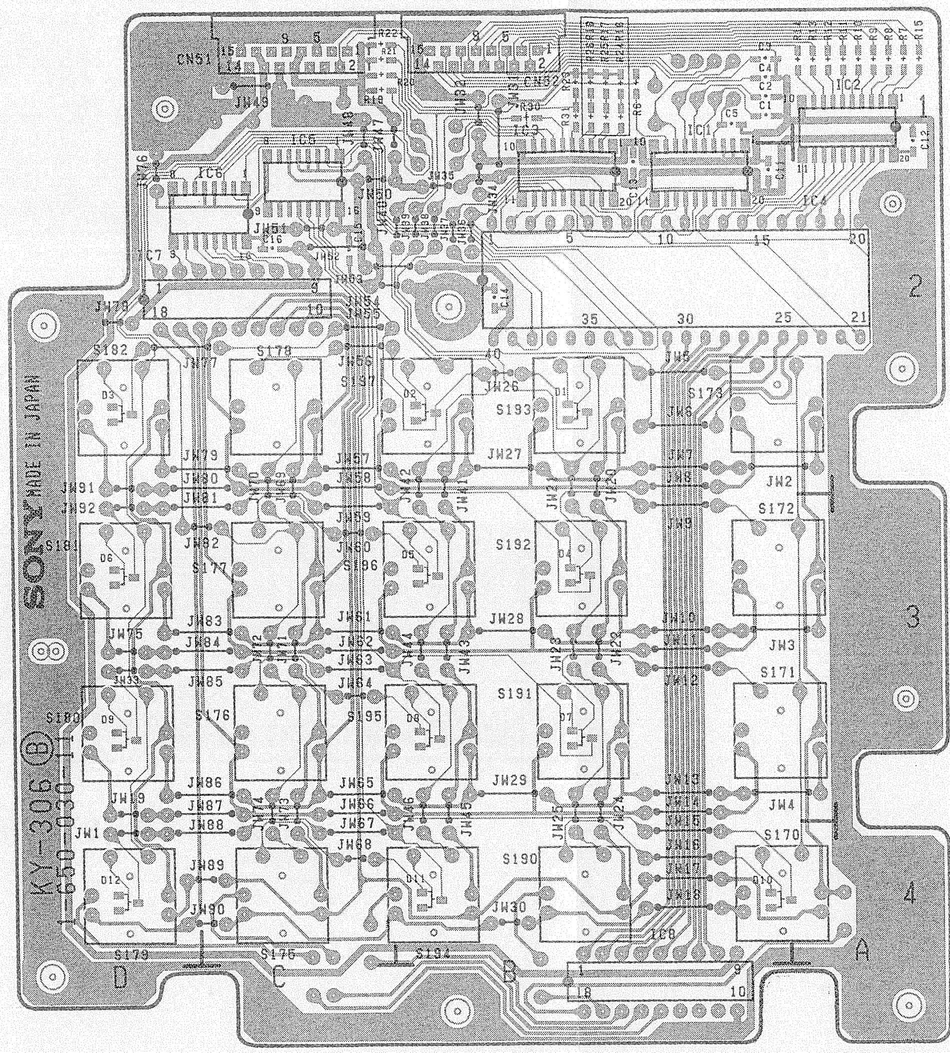
VARIABLE RESISTOR

RC	CARBON
RD	
RF	FUSE
RN	METAL
RS	
RW	WIERWOUND

KY-306;10 Key Switch Board


KY-306 1-650-030-11
SONY
MADE IN JAPAN
CN51
CN52
IC4
IC7
IC8
A
B
C
D
2
3
4

KY-306 -A SIDE-


CN51
CN52
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
SONY MADE IN JAPAN
KY-306 Ⓑ 1-650-030-11
A
B
C
D
2
3
4

KY-306 -B SIDE-
1-650-030-11
BKDS-2010

KY-306(1-650-030-11)

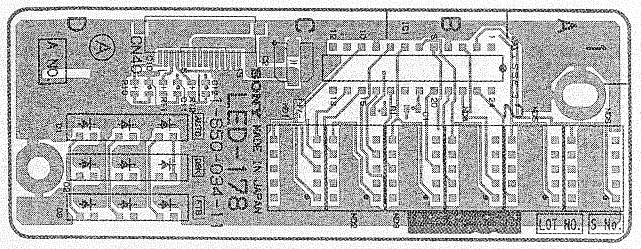
CN51	C-1
CN52	B-1
D1	*B-2
D2	*B-2
D3	*D-2
D4	*B-3
D5	*B-3
D6	*D-3
D7	*B-3
D8	*B-3
D9	*D-3
D10	*B-4
D11	*B-4
D12	*D-4
IC1	*B-1
IC2	*A-1
IC3	*B-1
IC4	B-2
IC5	*C-1
IC6	*C-2
IC7	C-2
IC8	B-4
S170	B-4
S171	B-3
S172	A-3
S173	A-2
S175	C-4
S176	C-3
S177	C-3
S178	C-2
S179	C-4
S180	C-3
S181	C-3
S182	C-2
S190	B-4
S191	B-3
S192	B-3
S193	B-2
S194	B-4
S195	B-3
S196	B-3
S197	B-2

* ;B SIDE

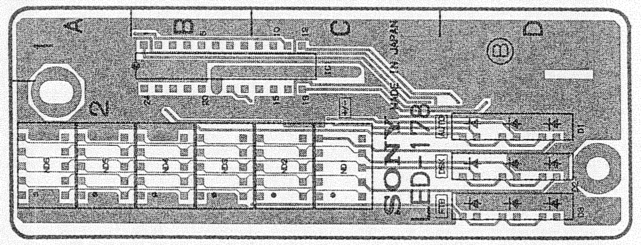
LED-178;LED Board

LED-178(1-650-034-11)

CN40	D-1
D1	D-2
D2	D-2
D3	D-2
IC1	B-1
ND1	C-2
ND2	C-2
ND3	B-2
ND4	B-2
ND5	A-2
ND6	A-2


D
C
B
A
1
2
Ⓐ
CN40
SONY MADE IN JAPAN
LED-178
1-650-034-11
LOT NO.
S No.

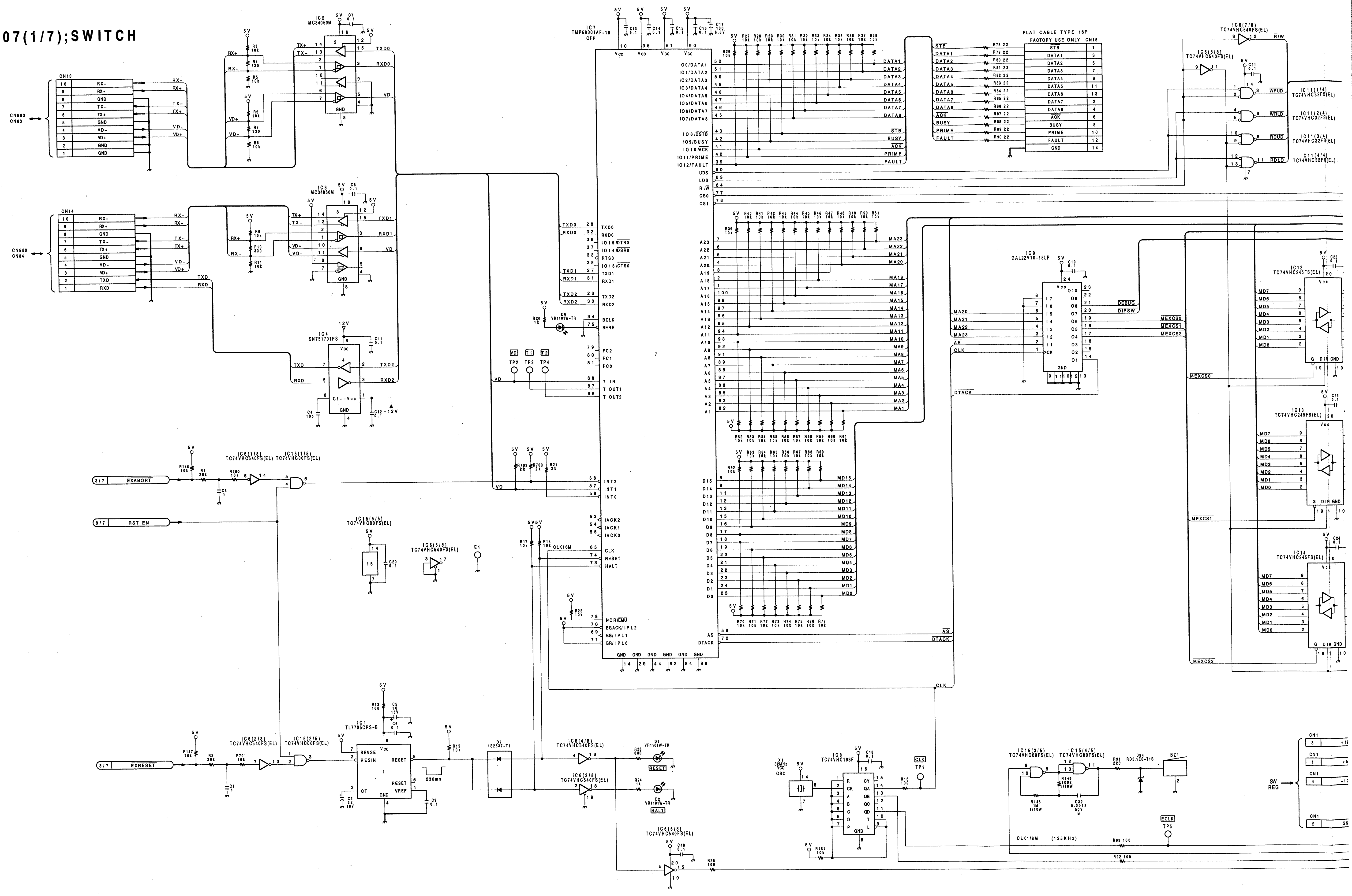
LED-178 -A SIDE-


A
B
C
D
1
2
Ⓑ
SONY MADE IN JAPAN
LED-178

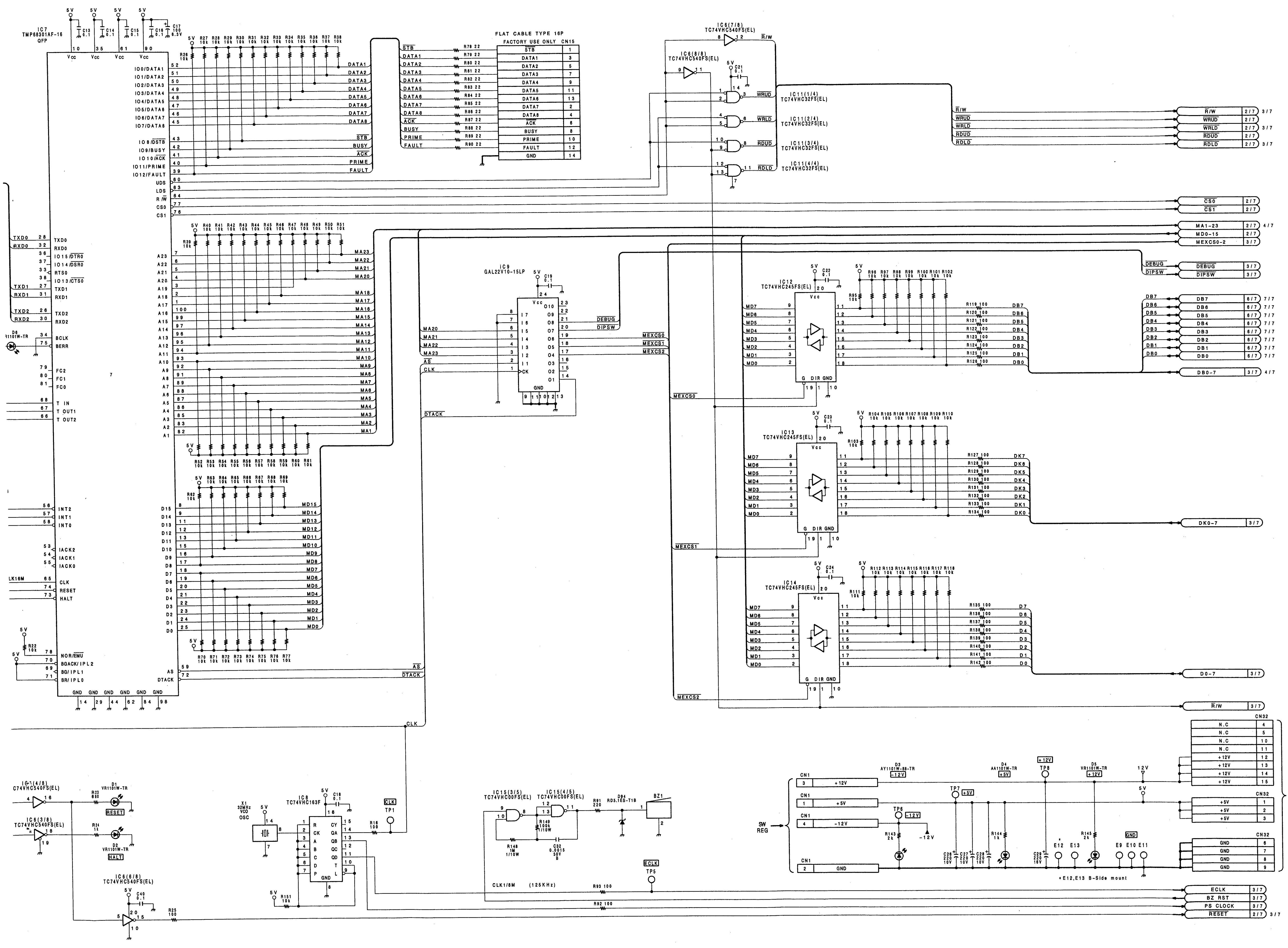
LED-178 -B SIDE-

1-650-034-11
BKDS-2010

KY-307(1/7);SWITCH


CN13
CN980 CN83
CN14
CN980 CN84
IC2 MC34050M
IC3 MC34050M
IC4 SN751701PS
IC7 TMP68301AF-16 QFP
FLAT CABLE TYPE 16P
FACTORY USE ONLY CN15
IC9 GAL22V10-15LP
IC12 TC74VHC245FS(EL)
IC13 TC74VHC245FS(EL)
IC14 TC74VHC245FS(EL)
IC6(7/8) TC74VHC540FS(EL)
IC6(8/8) TC74VHC540FS(EL)
IC11(1/4) TC74VHC32FS(EL)
IC11(2/4) TC74VHC32FS(EL)
IC11(3/4) TC74VHC32FS(EL)
IC11(4/4) TC74VHC32FS(EL)
IC6(1/8) TC74VHC540FS(EL)
IC15(1/5) TC74VHC00FS(EL)
IC15(5/5) TC74VHC00FS(EL)
IC6(5/8) TC74VHC540FS(EL)
IC6(2/8) TC74VHC540FS(EL)
IC15(2/5) TC74VHC00FS(EL)
IC1 TL7705CPS-B
D7 1S2837-T1
IC6(4/8) TC74VHC540FS(EL)
IC6(3/8) TC74VHC540FS(EL)
IC6(6/8) TC74VHC540FS(EL)
D1 VR1101W-TR RESET
D2 VR1101W-TR HALT
X1 32MHz VCO OSC
IC8 TC74VHC163F
IC15(3/5) TC74VHC00FS(EL)
IC15(4/5) TC74VHC00FS(EL)
D94 RD5.1ES-T1B
BZ1
CLK1/8M (125KHz)
ECLK TP5
CLK TP1
3/7 EXABORT
3/7 RST EN
3/7 EXRESET
230ms
SW REG
TP2 TP3 TP4
E1
MEXCS0
MEXCS1
MEXCS2
DEBUG
DIPSW
WRUD
WRLD
RDUD
RDLD
R/W
DTACK
AS
CLK

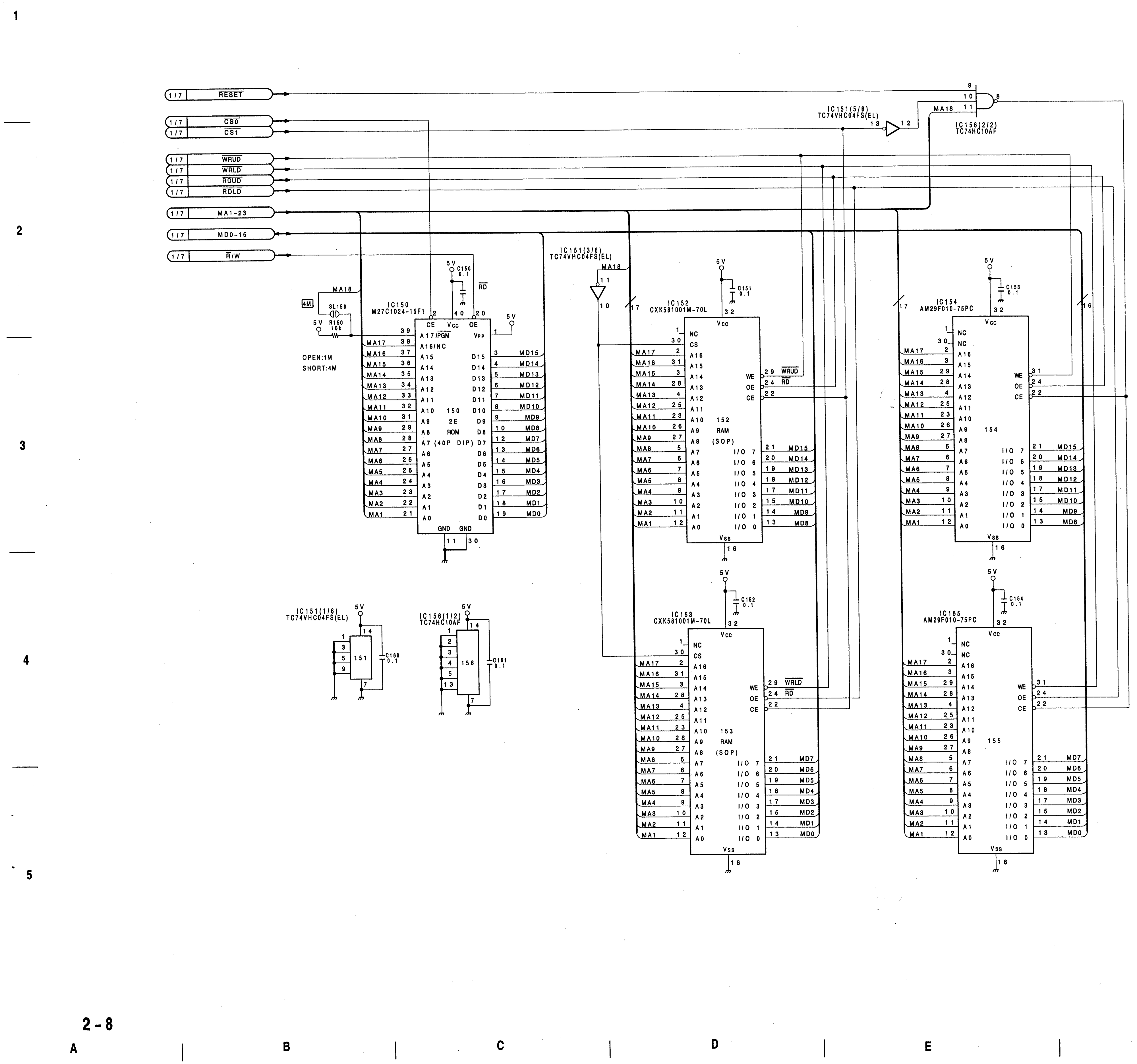
A | B | C | D | E | F | G | H


IC7 TMP68301AF-16 QFP
IC9 GAL22V10-15LP
IC6(7/8) TC74VHC540FS(EL)
IC6(8/8) TC74VHC540FS(EL)
IC11(1/4) TC74VHC32FS(EL)
IC11(2/4) TC74VHC32FS(EL)
IC11(3/4) TC74VHC32FS(EL)
IC11(4/4) TC74VHC32FS(EL)
IC12 TC74VHC245FS(EL)
IC13 TC74VHC245FS(EL)
IC14 TC74VHC245FS(EL)
IC8 TC74VHC163F
IC15(3/5) TC74VHC00FS(EL)
IC15(4/5) TC74VHC00FS(EL)
IC6(4/8) TC74VHC540FS(EL)
IC6(3/8) TC74VHC540FS(EL)
IC6(6/8) TC74VHC540FS(EL)
X1 32MHz VCO OSC
FLAT CABLE TYPE 16P
FACTORY USE ONLY CN15
STB
DATA1
DATA2
DATA3
DATA4
DATA5
DATA6
DATA7
DATA8
ACK
BUSY
PRIME
FAULT
GND
R/W
WRUD
WRLD
RDUD
RDLD
CS0
CS1
MA1-23
MD0-15
MEXCS0-2
DEBUG
DIPSW
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DB0
DB0-7
DK0-7
D0-7
MEXCS0
MEXCS1
MEXCS2
DTACK
AS
CLK
RESET
HALT
ECLK
BZ RST
PS CLOCK
CLK1/8M (125KHz)
BZ1
D94 RD5.1ES-T1B
D1 VR1101W-TR
D2 VR1101W-TR
D3 AY1101W-88-TR
D4 AA1101W-TR
D5 VR1101W-TR
TP1
TP5
TP6
TP7
TP8
E9 E10 E11
E12 E13
+E12,E13 B-Side mount
SW REG
CN1
CN32
N.C
+12V
+5V
-12V
GND
KY-308 CN22
E
F
G
H
I
J
K
L
1
2
3
4
5

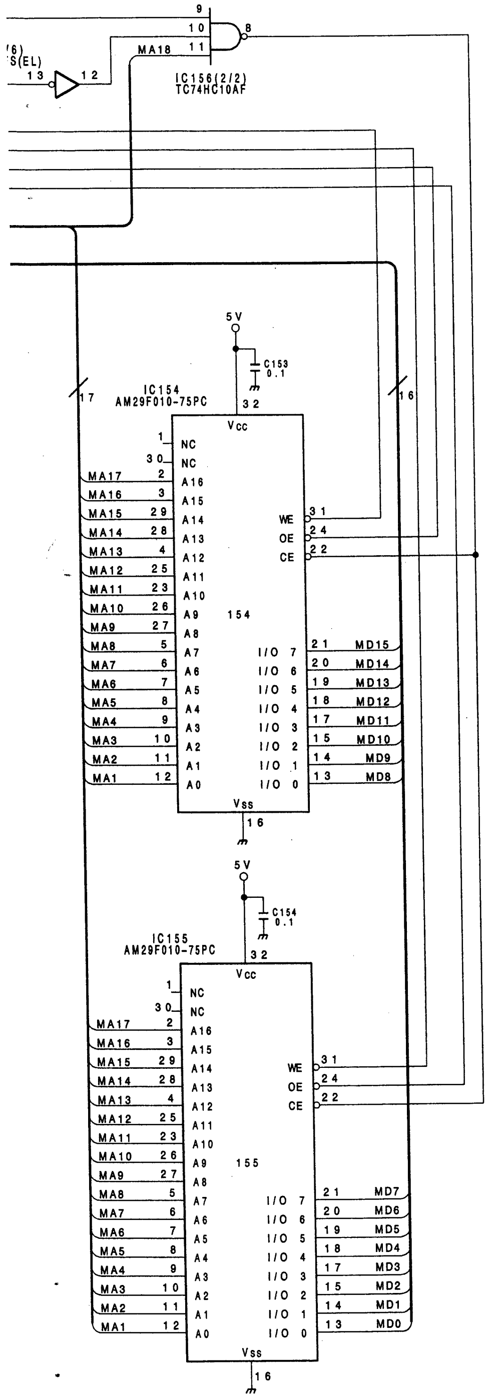
KY-307 BOARD (1/7)

BOARD NO.1-650-031-11
BKDS-2010

KY-307(2/7);SWITCH


1
2
3
4
5
A
B
C
D
E
F
G
H
1/7 RESET
1/7 CS0
1/7 CS1
1/7 WRUD
1/7 WRLD
1/7 RDUD
1/7 RDLD
1/7 MA1-23
1/7 MD0-15
1/7 R/W
IC151(5/6)
TC74VHC04FS(EL)
IC156(2/2)
TC74HC10AF
MA18
IC151(3/6)
TC74VHC04FS(EL)
4M
SL150
R150
10k
5V
OPEN:1M
SHORT:4M
C150
0.1
RD
IC150
M27C1024-15F1
150
2E
ROM
A7 (40P DIP)
CE
Vcc
OE
VPP
GND
IC152
CXK581001M-70L
C151
0.1
152
RAM
(SOP)
WE
OE
CE
Vss
IC153
CXK581001M-70L
C152
0.1
153
RAM
(SOP)
IC154
AM29F010-75PC
C153
0.1
154
IC155
AM29F010-75PC
C154
0.1
155
IC151(1/6)
TC74VHC04FS(EL)
151
C160
0.1
IC156(1/2)
TC74HC10AF
156
C161
0.1

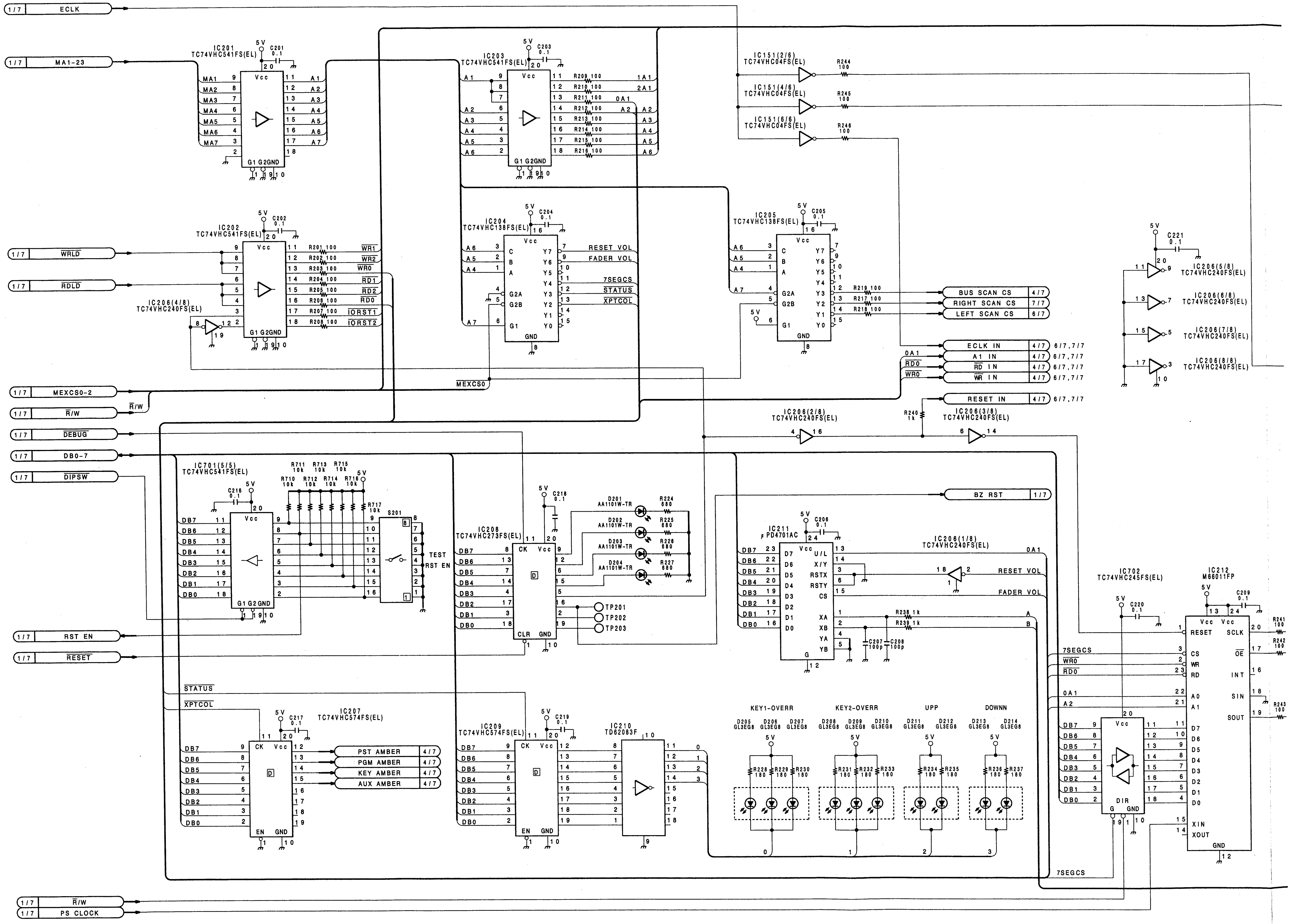
KY-307 BOARD (2/7)
BOARD NO.1-650-031-11
BKDS-2010

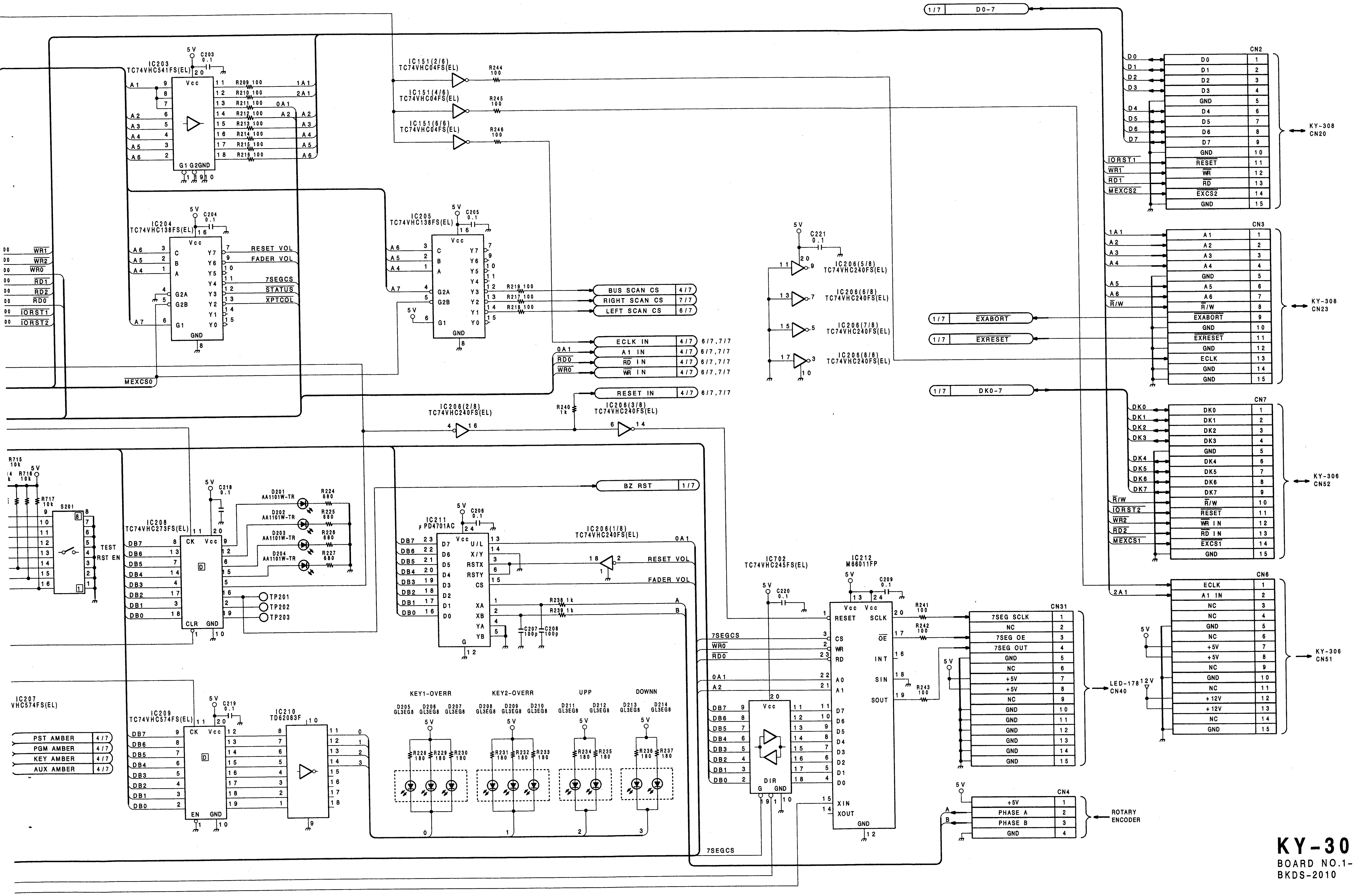

IC156(2/2)
TC74HC10AF
MA18
9
10
11
8
13
12
IC154
AM29F010-75PC
5V
C153
0.1
32
Vcc
17
16
NC
A16
A15
A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
WE
OE
CE
154
I/O 7
I/O 6
I/O 5
I/O 4
I/O 3
I/O 2
I/O 1
I/O 0
Vss
MA17
MA16
MA15
MA14
MA13
MA12
MA11
MA10
MA9
MA8
MA7
MA6
MA5
MA4
MA3
MA2
MA1
MD15
MD14
MD13
MD12
MD11
MD10
MD9
MD8
IC155
AM29F010-75PC
C154
0.1
155
MD7
MD6
MD5
MD4
MD3
MD2
MD1
MD0

KY-307 BOARD (2/7)

BOARD NO.1-650-031-11
BKDS-2010

KY-307(3/7);SWITCH

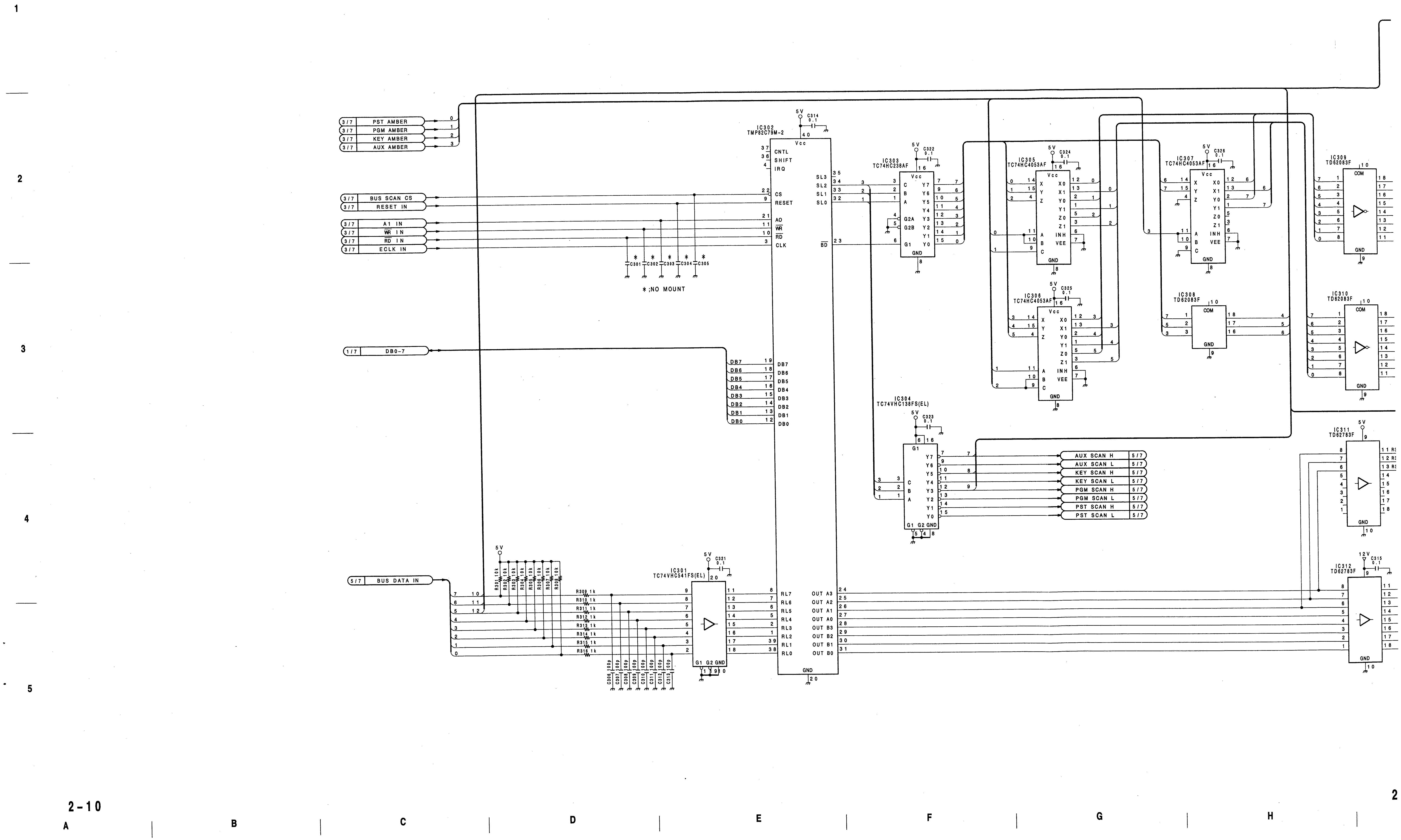

ECLK
MA1-23
WRLD
RDLD
MEXCS0-2
R/W
DEBUG
DB0-7
DIPSW
RST EN
RESET
PS CLOCK
IC201 TC74VHC541FS(EL)
IC202 TC74VHC541FS(EL)
IC203 TC74VHC541FS(EL)
IC204 TC74VHC138FS(EL)
IC205 TC74VHC138FS(EL)
IC151(2/6) TC74VHC04FS(EL)
IC151(4/6) TC74VHC04FS(EL)
IC151(6/6) TC74VHC04FS(EL)
IC206(1/8) TC74VHC240FS(EL)
IC206(2/8) TC74VHC240FS(EL)
IC206(3/8) TC74VHC240FS(EL)
IC206(4/8) TC74VHC240FS(EL)
IC206(5/8) TC74VHC240FS(EL)
IC206(6/8) TC74VHC240FS(EL)
IC206(7/8) TC74VHC240FS(EL)
IC206(8/8) TC74VHC240FS(EL)
IC701(5/5) TC74VHC541FS(EL)
IC207 TC74VHC574FS(EL)
IC208 TC74VHC273FS(EL)
IC209 TC74VHC574FS(EL)
IC210 TD62083F
IC211 μPD4701AC
IC702 TC74VHC245FS(EL)
IC212 M66011FP
S201
TEST
RST EN
TP201
TP202
TP203
D201 AA1101W-TR
D202 AA1101W-TR
D203 AA1101W-TR
D204 AA1101W-TR
KEY1-OVERR
KEY2-OVERR
UPP
DOWNN
D205 GL3EG8
D206 GL3EG8
D207 GL3EG8
D208 GL3EG8
D209 GL3EG8
D210 GL3EG8
D211 GL3EG8
D212 GL3EG8
D213 GL3EG8
D214 GL3EG8
RESET VOL
FADER VOL
7SEGCS
STATUS
XPTCOL
WR1
WR2
WR0
RD1
RD2
RD0
IORST1
IORST2
MEXCS0
0A1
BUS SCAN CS 4/7
RIGHT SCAN CS 7/7
LEFT SCAN CS 6/7
ECLK IN 4/7 6/7,7/7
A1 IN 4/7 6/7,7/7
RD IN 4/7 6/7,7/7
WR IN 4/7 6/7,7/7
RESET IN 4/7 6/7,7/7
BZ RST 1/7
PST AMBER 4/7
PGM AMBER 4/7
KEY AMBER 4/7
AUX AMBER 4/7
RESET
SCLK
OE
INT
SIN
SOUT
XIN
XOUT
DIR
5V

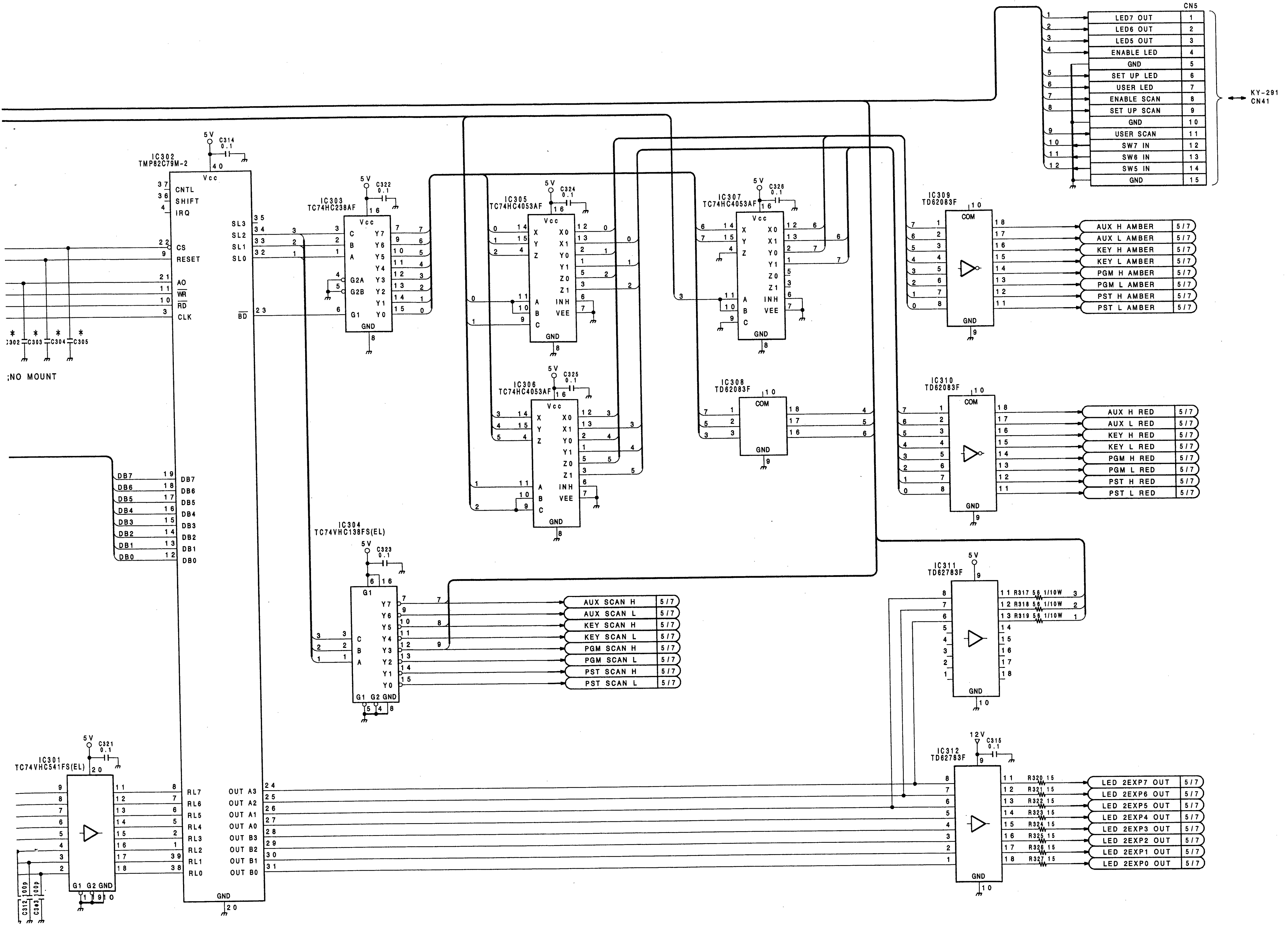

IC203 TC74VHC541FS(EL)
IC204 TC74VHC138FS(EL)
IC205 TC74VHC138FS(EL)
IC151(2/6) TC74VHC04FS(EL)
IC151(4/6) TC74VHC04FS(EL)
IC151(6/6) TC74VHC04FS(EL)
IC206(5/8) TC74VHC240FS(EL)
IC206(6/8) TC74VHC240FS(EL)
IC206(7/8) TC74VHC240FS(EL)
IC206(8/8) TC74VHC240FS(EL)
IC206(2/8) TC74VHC240FS(EL)
IC206(3/8) TC74VHC240FS(EL)
IC206(1/8) TC74VHC240FS(EL)
IC208 TC74VHC273FS(EL)
IC211 μPD4701AC
IC702 TC74VHC245FS(EL)
IC212 M66011FP
IC207 VHC574FS(EL)
IC209 TC74VHC574FS(EL)
IC210 TD62083F
S201
TEST
RST EN
D201 AA1101W-TR
D202 AA1101W-TR
D203 AA1101W-TR
D204 AA1101W-TR
TP201
TP202
TP203
RESET VOL
FADER VOL
7SEGCS
STATUS
XPTCOL
MEXCS0
BUS SCAN CS 4/7
RIGHT SCAN CS 7/7
LEFT SCAN CS 6/7
ECLK IN 4/7 6/7,7/7
A1 IN 4/7 6/7,7/7
RD IN 4/7 6/7,7/7
WR IN 4/7 6/7,7/7
RESET IN 4/7 6/7,7/7
BZ RST 1/7
1/7 D0-7
1/7 EXABORT
1/7 EXRESET
1/7 DK0-7
PST AMBER 4/7
PGM AMBER 4/7
KEY AMBER 4/7
AUX AMBER 4/7
KEY1-OVERR
KEY2-OVERR
UPP
DOWNN
D205 GL3EG8
D206 GL3EG8
D207 GL3EG8
D208 GL3EG8
D209 GL3EG8
D210 GL3EG8
D211 GL3EG8
D212 GL3EG8
D213 GL3EG8
D214 GL3EG8
CN2
D0
D1
D2
D3
GND
D4
D5
D6
D7
GND
RESET
WR
RD
EXCS2
GND
KY-308 CN20
CN3
A1
A2
A3
A4
GND
A5
A6
R/W
EXABORT
GND
EXRESET
GND
ECLK
GND
GND
KY-308 CN23
CN7
DK0
DK1
DK2
DK3
GND
DK4
DK5
DK6
DK7
R/W
RESET
WR IN
RD IN
EXCS1
GND
KY-306 CN52
CN6
ECLK
A1 IN
NC
NC
GND
NC
+5V
+5V
NC
GND
NC
+12V
+12V
NC
GND
KY-306 CN51
CN31
7SEG SCLK
NC
7SEG OE
7SEG OUT
GND
NC
+5V
+5V
NC
GND
GND
GND
GND
GND
GND
LED-178 CN40
CN4
+5V
PHASE A
PHASE B
GND
ROTARY ENCODER
1
2
3
4
5
E
F
G
H
I
J
K
L

KY-307 BOARD (3/7)

BOARD NO.1-650-031-11
BKDS-2010

KY-307(4/7);SWITCH

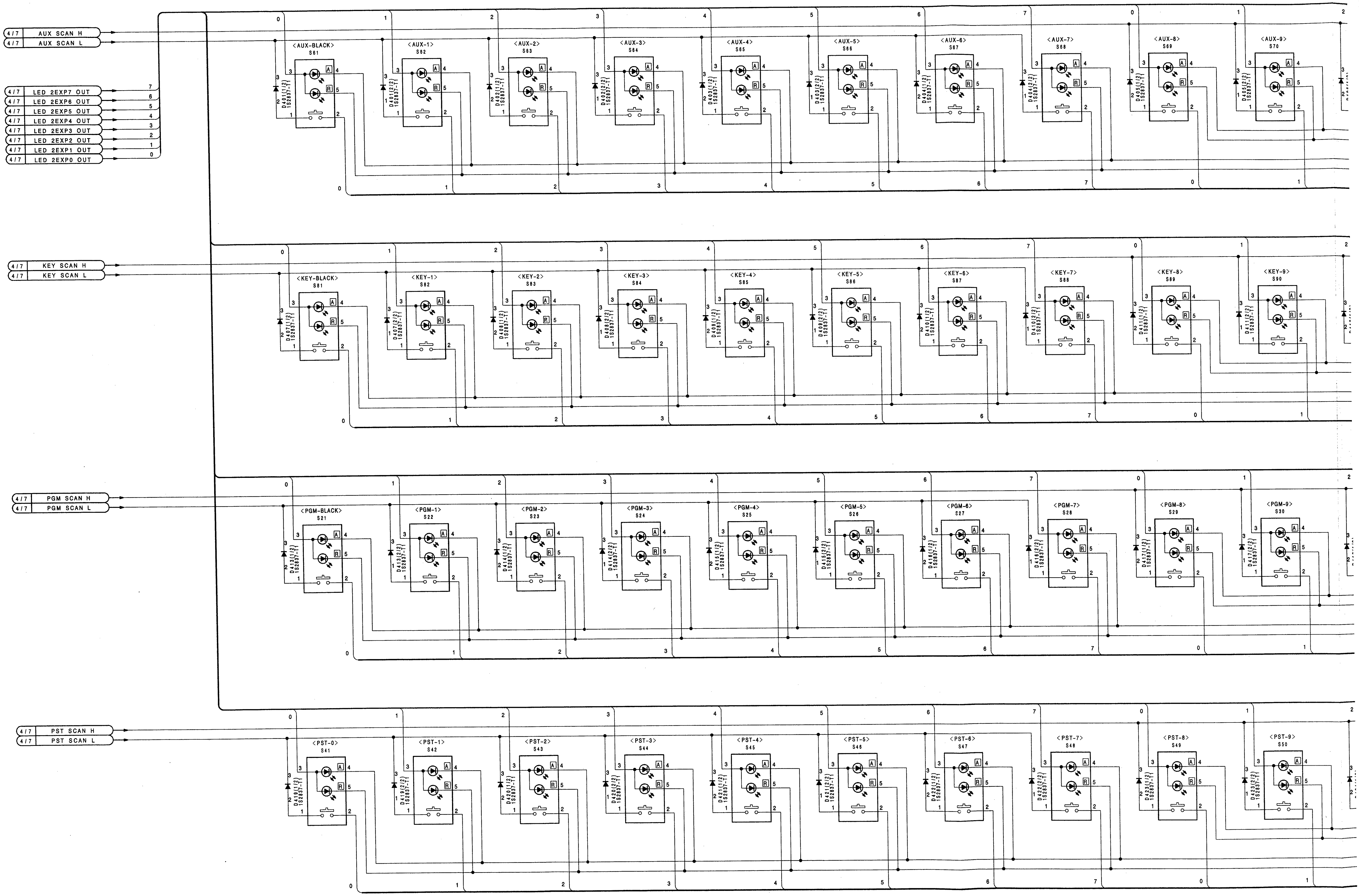

1
2
3
4
5
A
B
C
D
E
F
G
H
3/7 PST AMBER
3/7 PGM AMBER
3/7 KEY AMBER
3/7 AUX AMBER
3/7 BUS SCAN CS
3/7 RESET IN
3/7 A1 IN
3/7 WR IN
3/7 RD IN
3/7 ECLK IN
C301 C302 C303 C304 C305
*;NO MOUNT
1/7 DB0-7
DB7 DB6 DB5 DB4 DB3 DB2 DB1 DB0
5/7 BUS DATA IN
5V
R301 10k R302 10k R303 10k R304 10k R305 10k R306 10k R307 10k R308 10k
R309 1k R310 1k R311 1k R312 1k R313 1k R314 1k R315 1k R316 1k
C306 100p C307 100p C308 100p C309 100p C310 100p C311 100p C312 100p C313 100p
IC301
TC74VHC541FS(EL)
C321 0.1
G1 G2 GND
IC302
TMP82C79M-2
C314 0.1
Vcc
CNTL
SHIFT
IRQ
CS
RESET
A0
WR
RD
CLK
SL3 SL2 SL1 SL0
BD
RL7 RL6 RL5 RL4 RL3 RL2 RL1 RL0
OUT A3 OUT A2 OUT A1 OUT A0 OUT B3 OUT B2 OUT B1 OUT B0
GND
IC303
TC74HC238AF
C322 0.1
C B A G2A G2B G1
Y7 Y6 Y5 Y4 Y3 Y2 Y1 Y0
IC305
TC74HC4053AF
C324 0.1
IC306
TC74HC4053AF
C325 0.1
IC307
TC74HC4053AF
C326 0.1
X Y Z A B C
X0 X1 Y0 Y1 Z0 Z1 INH VEE
IC308
TD62083F
IC309
TD62083F
IC310
TD62083F
COM
IC304
TC74VHC138FS(EL)
C323 0.1
G1 C B A
G1 G2 GND
AUX SCAN H 5/7
AUX SCAN L 5/7
KEY SCAN H 5/7
KEY SCAN L 5/7
PGM SCAN H 5/7
PGM SCAN L 5/7
PST SCAN H 5/7
PST SCAN L 5/7
IC311
TD62783F
IC312
TD62783F
12V
C315 0.1
GND

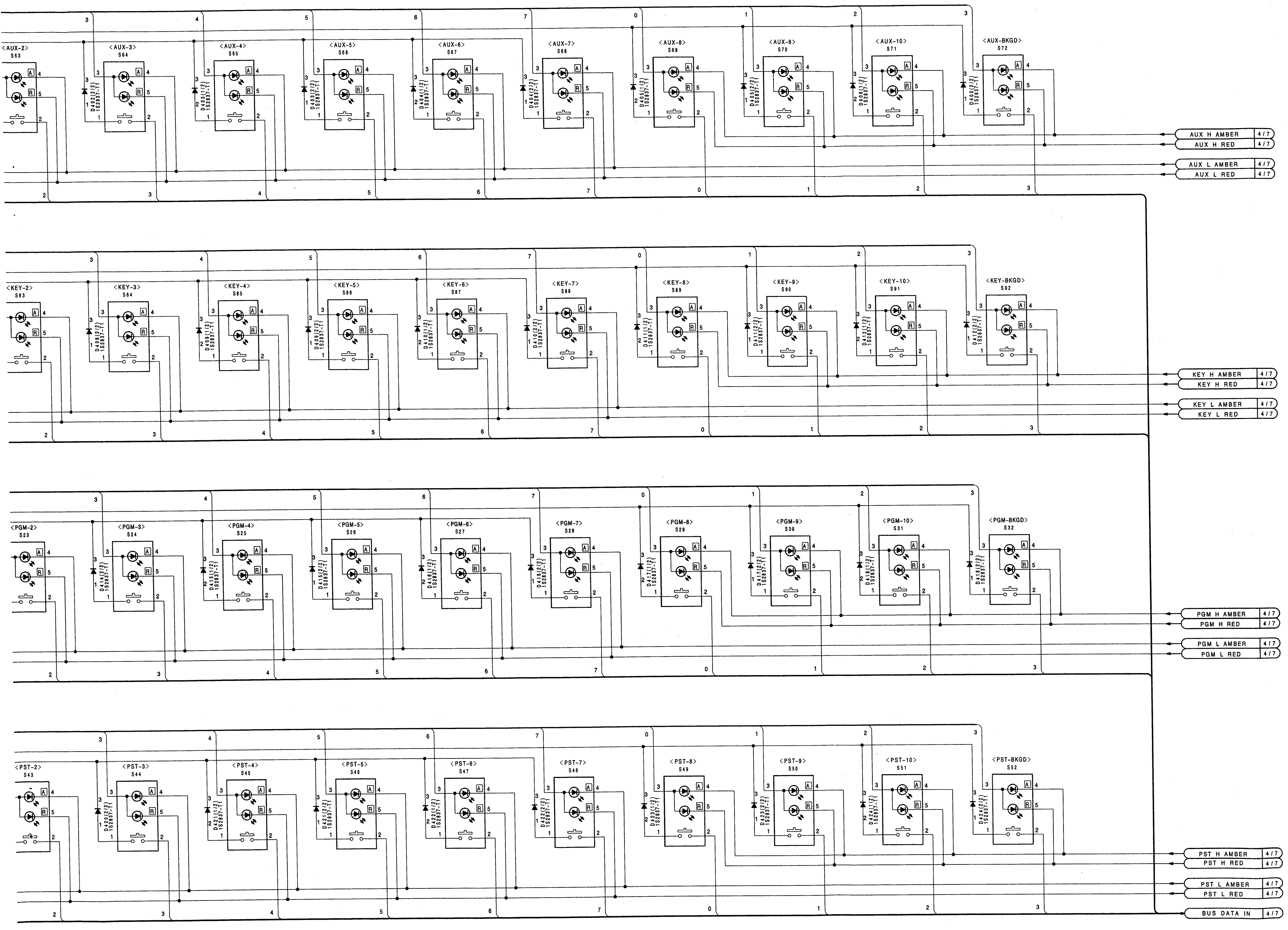

IC302
TMP82C79M-2
IC303
TC74HC238AF
IC304
TC74VHC138FS(EL)
IC305
TC74HC4053AF
IC306
TC74HC4053AF
IC307
TC74HC4053AF
IC308
TD62083F
IC309
TD62083F
IC310
TD62083F
IC311
TD62783F
IC312
TD62783F
IC301
TC74VHC541FS(EL)
C314 0.1
C322 0.1
C323 0.1
C324 0.1
C325 0.1
C326 0.1
C321 0.1
C315 0.1
5V
12V
CNTL
SHIFT
IRQ
CS
RESET
A0
WR
RD
CLK
SL3
SL2
SL1
SL0
BD
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DB0
RL7
RL6
RL5
RL4
RL3
RL2
RL1
RL0
OUT A3
OUT A2
OUT A1
OUT A0
OUT B3
OUT B2
OUT B1
OUT B0
Vcc
GND
COM
INH
VEE
G1
G2A
G2B
* C302 C303 C304 C305
*;NO MOUNT
CN5
LED7 OUT
LED6 OUT
LED5 OUT
ENABLE LED
GND
SET UP LED
USER LED
ENABLE SCAN
SET UP SCAN
GND
USER SCAN
SW7 IN
SW6 IN
SW5 IN
GND
KY-291 CN41
AUX H AMBER 5/7
AUX L AMBER 5/7
KEY H AMBER 5/7
KEY L AMBER 5/7
PGM H AMBER 5/7
PGM L AMBER 5/7
PST H AMBER 5/7
PST L AMBER 5/7
AUX H RED 5/7
AUX L RED 5/7
KEY H RED 5/7
KEY L RED 5/7
PGM H RED 5/7
PGM L RED 5/7
PST H RED 5/7
PST L RED 5/7
AUX SCAN H 5/7
AUX SCAN L 5/7
KEY SCAN H 5/7
KEY SCAN L 5/7
PGM SCAN H 5/7
PGM SCAN L 5/7
PST SCAN H 5/7
PST SCAN L 5/7
R317 56 1/10W
R318 56 1/10W
R319 56 1/10W
R320 15
R321 15
R322 15
R323 15
R324 15
R325 15
R326 15
R327 15
LED 2EXP7 OUT 5/7
LED 2EXP6 OUT 5/7
LED 2EXP5 OUT 5/7
LED 2EXP4 OUT 5/7
LED 2EXP3 OUT 5/7
LED 2EXP2 OUT 5/7
LED 2EXP1 OUT 5/7
LED 2EXP0 OUT 5/7
C312 C313

KY-307 BOARD (4/7)

BOARD NO.1-650-031-11
BKDS-2010

KY-307(5/7);SWITCH

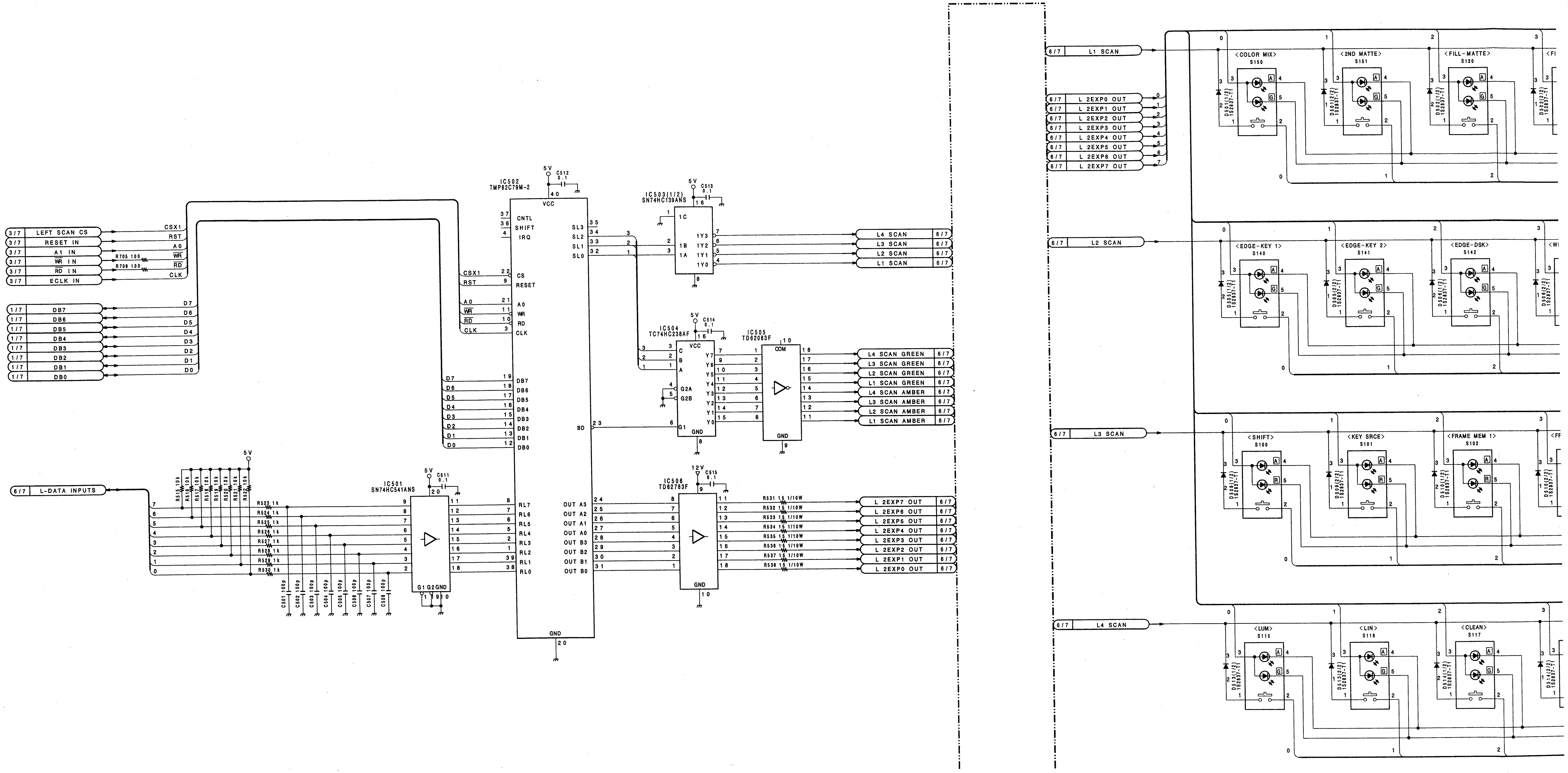

4/7 AUX SCAN H
4/7 AUX SCAN L
4/7 LED 2EXP7 OUT
4/7 LED 2EXP6 OUT
4/7 LED 2EXP5 OUT
4/7 LED 2EXP4 OUT
4/7 LED 2EXP3 OUT
4/7 LED 2EXP2 OUT
4/7 LED 2EXP1 OUT
4/7 LED 2EXP0 OUT
<AUX-BLACK> S61
<AUX-1> S62
<AUX-2> S63
<AUX-3> S64
<AUX-4> S65
<AUX-5> S66
<AUX-6> S67
<AUX-7> S68
<AUX-8> S69
<AUX-9> S70
D401(1/2) 1S2837-T1
D401(2/2) 1S2837-T1
D402(1/2) 1S2837-T1
4/7 KEY SCAN H
4/7 KEY SCAN L
<KEY-BLACK> S81
<KEY-1> S82
<KEY-2> S83
<KEY-3> S84
<KEY-4> S85
<KEY-5> S86
<KEY-6> S87
<KEY-7> S88
<KEY-8> S89
<KEY-9> S90
4/7 PGM SCAN H
4/7 PGM SCAN L
<PGM-BLACK> S21
<PGM-1> S22
<PGM-2> S23
<PGM-3> S24
<PGM-4> S25
<PGM-5> S26
<PGM-6> S27
<PGM-7> S28
<PGM-8> S29
<PGM-9> S30
4/7 PST SCAN H
4/7 PST SCAN L
<PST-0> S41
<PST-1> S42
<PST-2> S43
<PST-3> S44
<PST-4> S45
<PST-5> S46
<PST-6> S47
<PST-7> S48
<PST-8> S49
<PST-9> S50
A
R

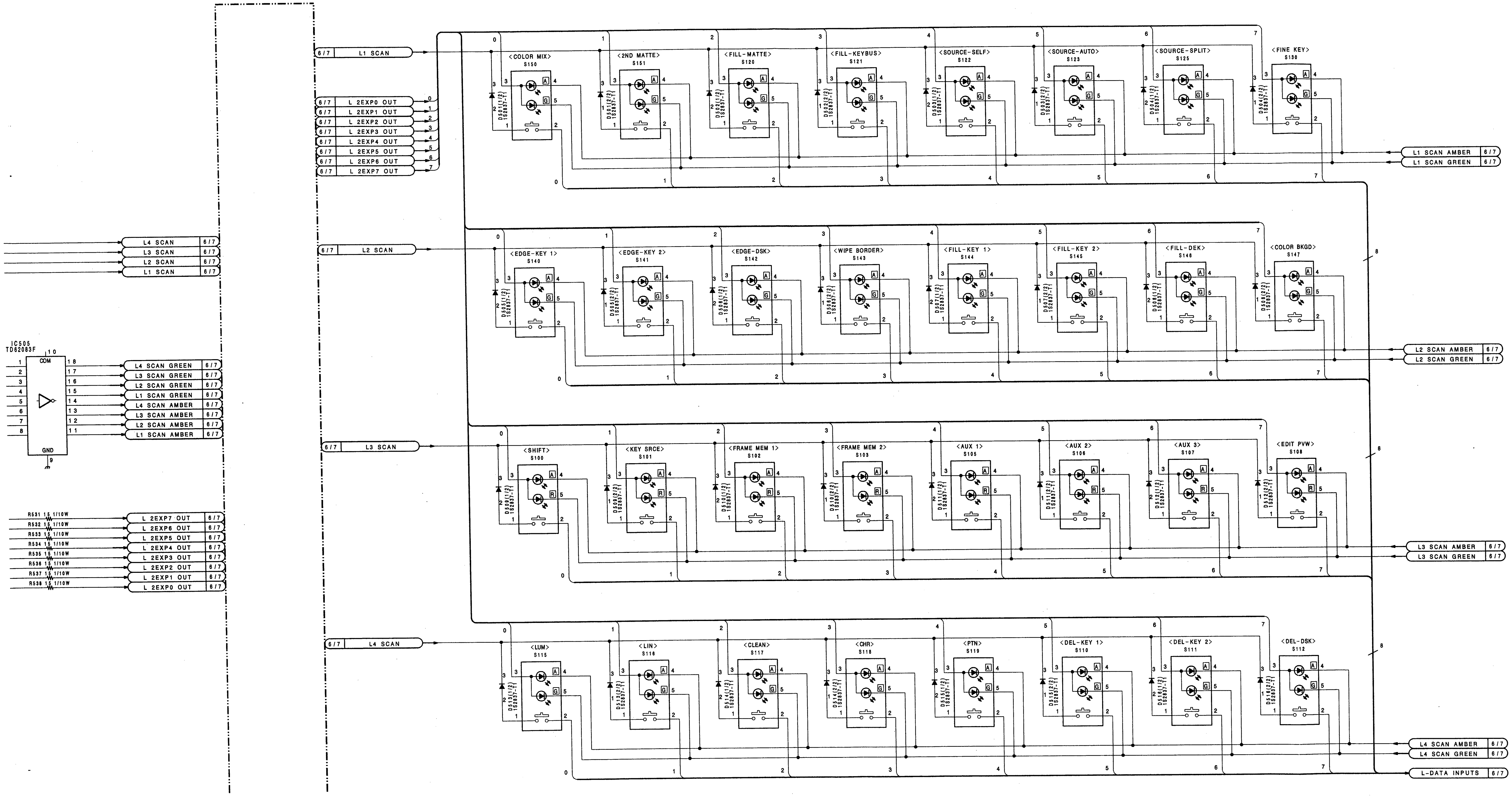

<AUX-2> S63
<AUX-3> S64
<AUX-4> S65
<AUX-5> S66
<AUX-6> S67
<AUX-7> S68
<AUX-8> S69
<AUX-9> S70
<AUX-10> S71
<AUX-BKGD> S72
AUX H AMBER 4/7
AUX H RED 4/7
AUX L AMBER 4/7
AUX L RED 4/7
<KEY-2> S83
<KEY-3> S84
<KEY-4> S85
<KEY-5> S86
<KEY-6> S87
<KEY-7> S88
<KEY-8> S89
<KEY-9> S90
<KEY-10> S91
<KEY-BKGD> S92
KEY H AMBER 4/7
KEY H RED 4/7
KEY L AMBER 4/7
KEY L RED 4/7
<PGM-2> S23
<PGM-3> S24
<PGM-4> S25
<PGM-5> S26
<PGM-6> S27
<PGM-7> S28
<PGM-8> S29
<PGM-9> S30
<PGM-10> S31
<PGM-BKGD> S32
PGM H AMBER 4/7
PGM H RED 4/7
PGM L AMBER 4/7
PGM L RED 4/7
<PST-2> S43
<PST-3> S44
<PST-4> S45
<PST-5> S46
<PST-6> S47
<PST-7> S48
<PST-8> S49
<PST-9> S50
<PST-10> S51
<PST-BKGD> S52
PST H AMBER 4/7
PST H RED 4/7
PST L AMBER 4/7
PST L RED 4/7
BUS DATA IN 4/7
1S2837-T1

KY-307 BOARD (5/7)

BOARD NO.1-650-031-11
BKDS-2010

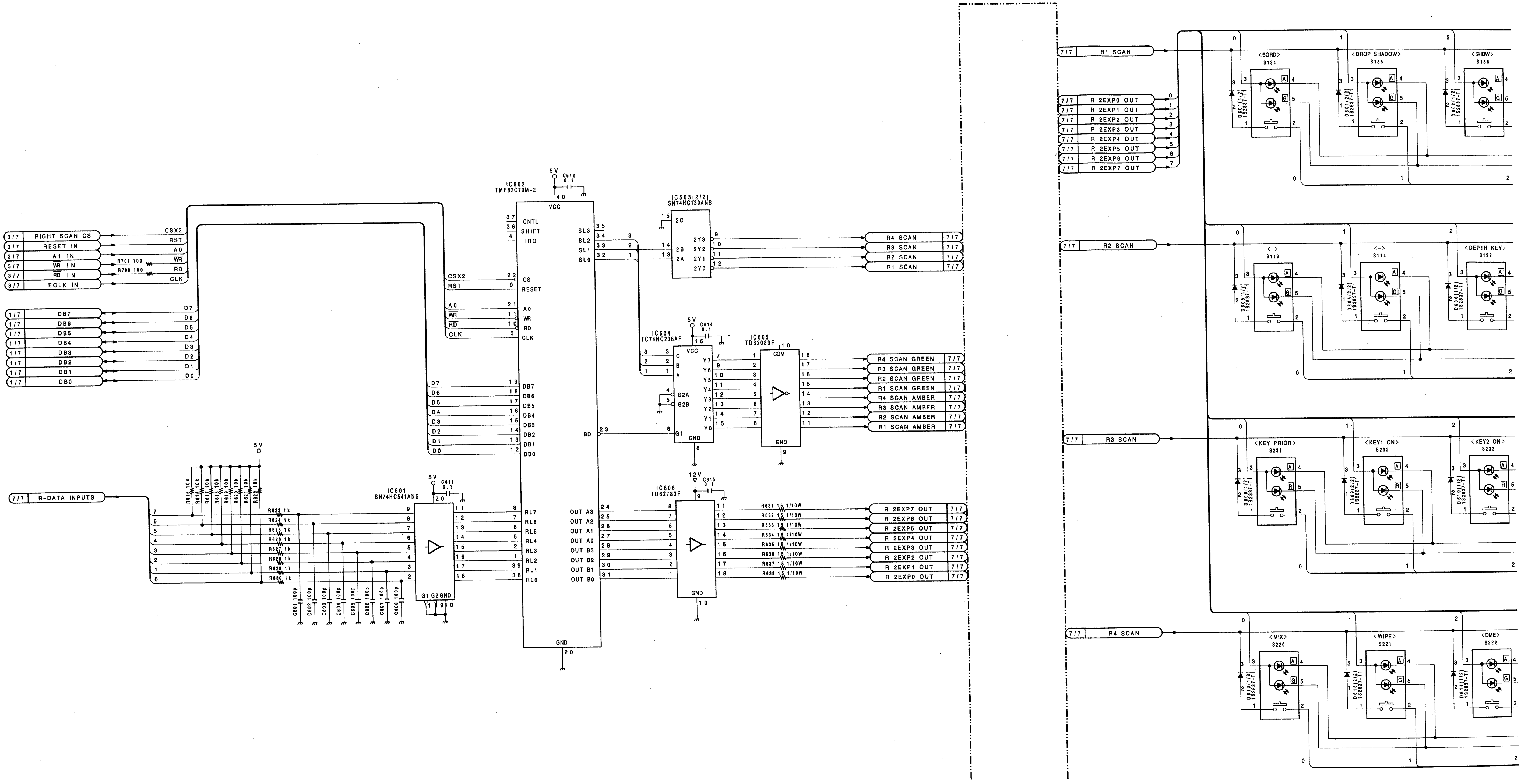
KY-307(6/7);SWITCH

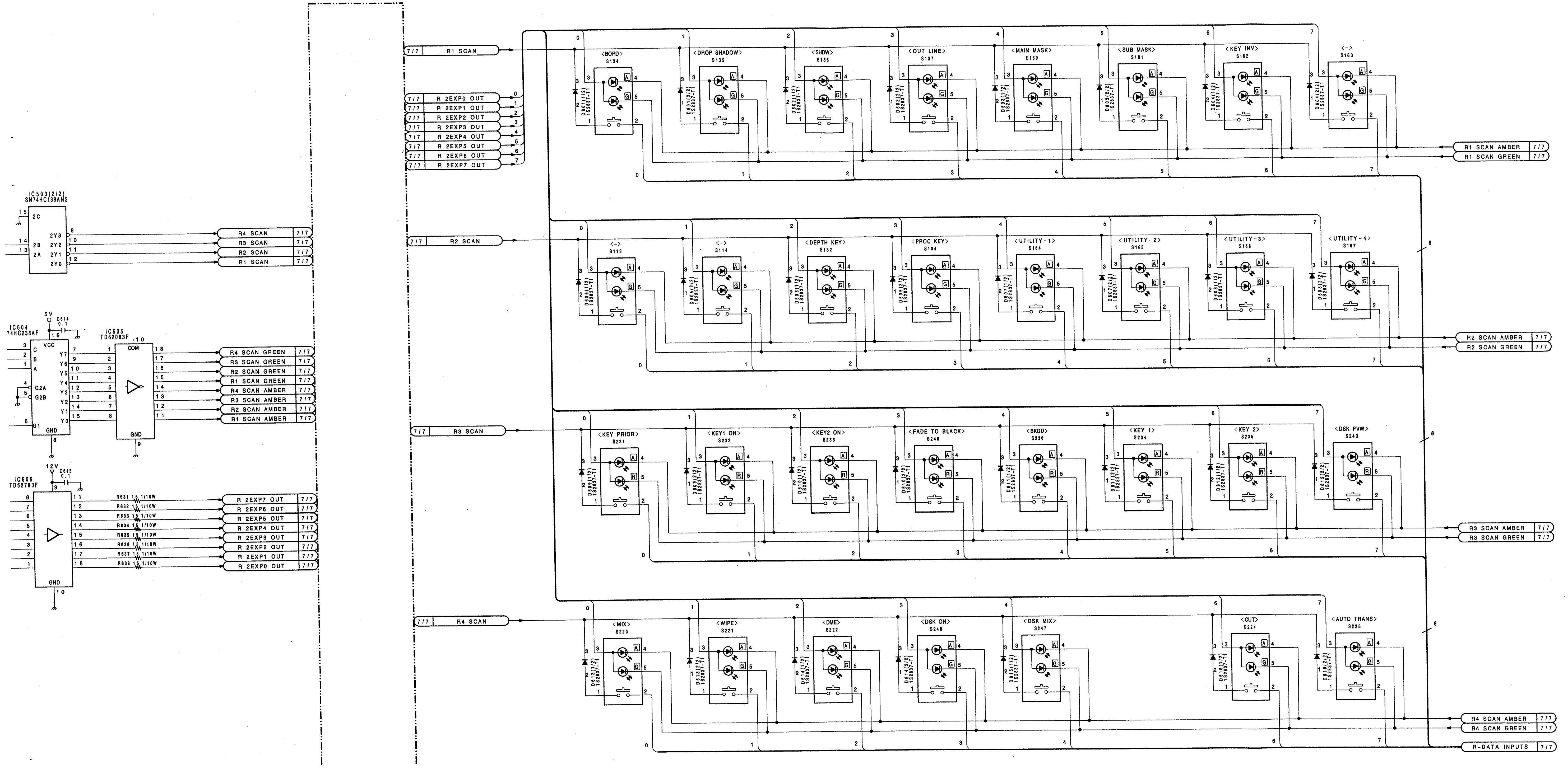

3/7 LEFT SCAN CS
3/7 RESET IN
3/7 A1 IN
3/7 WR IN
3/7 RD IN
3/7 ECLK IN
R705 100
R706 100
CSX1
RST
A0
WR
RD
CLK
1/7 DB7
1/7 DB6
1/7 DB5
1/7 DB4
1/7 DB3
1/7 DB2
1/7 DB1
1/7 DB0
D7
D6
D5
D4
D3
D2
D1
D0
6/7 L-DATA INPUTS
5V
R515 10k
R523 1k
R530 1k
C501 100p
C508 100p
IC501
SN74HC541ANS
C511
0.1
G1 G2 GND
IC502
TMP82C79M-2
5V
C512
0.1
VCC
CNTL
SHIFT
IRQ
CS
RESET
A0
WR
RD
CLK
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DB0
RL7
RL6
RL5
RL4
RL3
RL2
RL1
RL0
SL3
SL2
SL1
SL0
BD
OUT A3
OUT A2
OUT A1
OUT A0
OUT B3
OUT B2
OUT B1
OUT B0
GND
IC503(1/2)
SN74HC139ANS
C513
0.1
1C
1B
1A
1Y3
1Y2
1Y1
1Y0
L4 SCAN 6/7
L3 SCAN 6/7
L2 SCAN 6/7
L1 SCAN 6/7
IC504
TC74HC238AF
C514
0.1
VCC
C
B
A
G2A
G2B
G1
Y7
Y6
Y5
Y4
Y3
Y2
Y1
Y0
GND
IC505
TD62083F
COM
GND
L4 SCAN GREEN 6/7
L3 SCAN GREEN 6/7
L2 SCAN GREEN 6/7
L1 SCAN GREEN 6/7
L4 SCAN AMBER 6/7
L3 SCAN AMBER 6/7
L2 SCAN AMBER 6/7
L1 SCAN AMBER 6/7
12V
IC506
TD62783F
C515
0.1
GND
R531 15 1/10W
R532 15 1/10W
R533 15 1/10W
R534 15 1/10W
R535 15 1/10W
R536 15 1/10W
R537 15 1/10W
R538 15 1/10W
L 2EXP7 OUT 6/7
L 2EXP6 OUT 6/7
L 2EXP5 OUT 6/7
L 2EXP4 OUT 6/7
L 2EXP3 OUT 6/7
L 2EXP2 OUT 6/7
L 2EXP1 OUT 6/7
L 2EXP0 OUT 6/7
6/7 L1 SCAN
6/7 L 2EXP0 OUT
6/7 L 2EXP1 OUT
6/7 L 2EXP2 OUT
6/7 L 2EXP3 OUT
6/7 L 2EXP4 OUT
6/7 L 2EXP5 OUT
6/7 L 2EXP6 OUT
6/7 L 2EXP7 OUT
<COLOR MIX>
S150
<2ND MATTE>
S151
<FILL-MATTE>
S120
6/7 L2 SCAN
<EDGE-KEY 1>
S140
<EDGE-KEY 2>
S141
<EDGE-DSK>
S142
6/7 L3 SCAN
<SHIFT>
S100
<KEY SRCE>
S101
<FRAME MEM 1>
S102
6/7 L4 SCAN
<LUM>
S115
<LIN>
S116
<CLEAN>
S117
1SS297-T1
A
G
R
1
2
3
4
5
A
B
C
D
E
F
G
H


6/7 L1 SCAN
6/7 L 2EXP0 OUT
6/7 L 2EXP1 OUT
6/7 L 2EXP2 OUT
6/7 L 2EXP3 OUT
6/7 L 2EXP4 OUT
6/7 L 2EXP5 OUT
6/7 L 2EXP6 OUT
6/7 L 2EXP7 OUT
<COLOR MIX> S150
<2ND MATTE> S151
<FILL-MATTE> S120
<FILL-KEYBUS> S121
<SOURCE-SELF> S122
<SOURCE-AUTO> S123
<SOURCE-SPLIT> S125
<FINE KEY> S130
D501(1/2) 1S2837-T1
D501(2/2) 1S2837-T1
D502(1/2) 1S2837-T1
D502(2/2) 1S2837-T1
D503(1/2) 1S2837-T1
D503(2/2) 1S2837-T1
D504(1/2) 1S2837-T1
D504(2/2) 1S2837-T1
L1 SCAN AMBER 6/7
L1 SCAN GREEN 6/7
L4 SCAN 6/7
L3 SCAN 6/7
L2 SCAN 6/7
L1 SCAN 6/7
6/7 L2 SCAN
<EDGE-KEY 1> S140
<EDGE-KEY 2> S141
<EDGE-DSK> S142
<WIPE BORDER> S143
<FILL-KEY 1> S144
<FILL-KEY 2> S145
<FILL-DEK> S146
<COLOR BKGD> S147
D505(1/2) 1S2837-T1
D505(2/2) 1S2837-T1
D506(1/2) 1S2837-T1
D506(2/2) 1S2837-T1
D507(1/2) 1S2837-T1
D507(2/2) 1S2837-T1
D508(1/2) 1S2837-T1
D508(2/2) 1S2837-T1
L2 SCAN AMBER 6/7
L2 SCAN GREEN 6/7
IC505
TD62083F
COM
GND
L4 SCAN GREEN 6/7
L3 SCAN GREEN 6/7
L2 SCAN GREEN 6/7
L1 SCAN GREEN 6/7
L4 SCAN AMBER 6/7
L3 SCAN AMBER 6/7
L2 SCAN AMBER 6/7
L1 SCAN AMBER 6/7
6/7 L3 SCAN
<SHIFT> S100
<KEY SRCE> S101
<FRAME MEM 1> S102
<FRAME MEM 2> S103
<AUX 1> S105
<AUX 2> S106
<AUX 3> S107
<EDIT PVW> S108
D509(1/2) 1S2837-T1
D509(2/2) 1S2837-T1
D510(1/2) 1S2837-T1
D510(2/2) 1S2837-T1
D511(1/2) 1S2837-T1
D511(2/2) 1S2837-T1
D512(1/2) 1S2837-T1
D512(2/2) 1S2837-T1
L3 SCAN AMBER 6/7
L3 SCAN GREEN 6/7
R531 15 1/10W
R532 15 1/10W
R533 15 1/10W
R534 15 1/10W
R535 15 1/10W
R536 15 1/10W
R537 15 1/10W
R538 15 1/10W
L 2EXP7 OUT 6/7
L 2EXP6 OUT 6/7
L 2EXP5 OUT 6/7
L 2EXP4 OUT 6/7
L 2EXP3 OUT 6/7
L 2EXP2 OUT 6/7
L 2EXP1 OUT 6/7
L 2EXP0 OUT 6/7
6/7 L4 SCAN
<LUM> S115
<LIN> S116
<CLEAN> S117
<CHR> S118
<PTN> S119
<DEL-KEY 1> S110
<DEL-KEY 2> S111
<DEL-DSK> S112
D513(1/2) 1S2837-T1
D513(2/2) 1S2837-T1
D514(1/2) 1S2837-T1
D514(2/2) 1S2837-T1
D515(1/2) 1S2837-T1
D515(2/2) 1S2837-T1
D516(1/2) 1S2837-T1
D516(2/2) 1S2837-T1
L4 SCAN AMBER 6/7
L4 SCAN GREEN 6/7
L-DATA INPUTS 6/7

KY-307 BOARD (6/7)
BOARD NO.1-650-031-11
BKDS-2010

KY-307(7/7);SWITCH


3/7 RIGHT SCAN CS
3/7 RESET IN
3/7 A1 IN
3/7 WR IN
3/7 RD IN
3/7 ECLK IN
R707 100
R708 100
CSX2
RST
A0
WR
RD
CLK
1/7 DB7
1/7 DB6
1/7 DB5
1/7 DB4
1/7 DB3
1/7 DB2
1/7 DB1
1/7 DB0
D7
D6
D5
D4
D3
D2
D1
D0
7/7 R-DATA INPUTS
5V
R615 10k
R616 10k
R617 10k
R618 10k
R619 10k
R620 10k
R621 10k
R622 10k
R623 1k
R624 1k
R625 1k
R626 1k
R627 1k
R628 1k
R629 1k
R630 1k
C601 100p
C602 100p
C603 100p
C604 100p
C605 100p
C606 100p
C607 100p
C608 100p
IC601
SN74HC541ANS
C611 0.1
G1 G2 GND
IC602
TMP82C79M-2
C612 0.1
VCC
CNTL
SHIFT
IRQ
CS
RESET
A0
WR
RD
CLK
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DB0
RL7
RL6
RL5
RL4
RL3
RL2
RL1
RL0
SL3
SL2
SL1
SL0
BD
OUT A3
OUT A2
OUT A1
OUT A0
OUT B3
OUT B2
OUT B1
OUT B0
GND
IC503(2/2)
SN74HC139ANS
2C
2B
2A
2Y3
2Y2
2Y1
2Y0
R4 SCAN 7/7
R3 SCAN 7/7
R2 SCAN 7/7
R1 SCAN 7/7
IC604
TC74HC238AF
C614 0.1
G2A
G2B
G1
Y7
Y6
Y5
Y4
Y3
Y2
Y1
Y0
IC605
TD62083F
COM
R4 SCAN GREEN 7/7
R3 SCAN GREEN 7/7
R2 SCAN GREEN 7/7
R1 SCAN GREEN 7/7
R4 SCAN AMBER 7/7
R3 SCAN AMBER 7/7
R2 SCAN AMBER 7/7
R1 SCAN AMBER 7/7
IC606
TD62783F
12V
C615 0.1
R631 15 1/10W
R632 15 1/10W
R633 15 1/10W
R634 15 1/10W
R635 15 1/10W
R636 15 1/10W
R637 15 1/10W
R638 15 1/10W
R 2EXP7 OUT 7/7
R 2EXP6 OUT 7/7
R 2EXP5 OUT 7/7
R 2EXP4 OUT 7/7
R 2EXP3 OUT 7/7
R 2EXP2 OUT 7/7
R 2EXP1 OUT 7/7
R 2EXP0 OUT 7/7
7/7 R1 SCAN
7/7 R 2EXP0 OUT
7/7 R 2EXP1 OUT
7/7 R 2EXP2 OUT
7/7 R 2EXP3 OUT
7/7 R 2EXP4 OUT
7/7 R 2EXP5 OUT
7/7 R 2EXP6 OUT
7/7 R 2EXP7 OUT
<BORD>
S134
D601(1/2) 1S2837-T1
<DROP SHADOW>
S135
D601(2/2) 1S2837-T1
<SHDW>
S136
D602(1/2) 1S2837-T1
7/7 R2 SCAN
<->
S113
D605(1/2) 1S2837-T1
<->
S114
D605(2/2) 1S2837-T1
<DEPTH KEY>
S132
D606(1/2) 1S2837-T1
7/7 R3 SCAN
<KEY PRIOR>
S231
D609(1/2) 1S2837-T1
<KEY1 ON>
S232
D609(2/2) 1S2837-T1
<KEY2 ON>
S233
D610(1/2) 1S2837-T1
7/7 R4 SCAN
<MIX>
S220
D613(1/2) 1S2837-T1
<WIPE>
S221
D613(2/2) 1S2837-T1
<DME>
S222
D614(1/2) 1S2837-T1
A
G
R


IC503(2/2)
SN74HC139ANS
2C
2B
2A
2Y3
2Y2
2Y1
2Y0
R4 SCAN 7/7
R3 SCAN 7/7
R2 SCAN 7/7
R1 SCAN 7/7
IC604
74HC238AF
5V
C614
0.1
VCC
C
B
A
G2A
G2B
G1
Y7
Y6
Y5
Y4
Y3
Y2
Y1
Y0
GND
IC605
TD62083F
COM
GND
R4 SCAN GREEN 7/7
R3 SCAN GREEN 7/7
R2 SCAN GREEN 7/7
R1 SCAN GREEN 7/7
R4 SCAN AMBER 7/7
R3 SCAN AMBER 7/7
R2 SCAN AMBER 7/7
R1 SCAN AMBER 7/7
IC606
TD62783F
12V
C615
0.1
GND
R631 15 1/10W
R632 15 1/10W
R633 15 1/10W
R634 15 1/10W
R635 15 1/10W
R636 15 1/10W
R637 15 1/10W
R638 15 1/10W
R 2EXP7 OUT 7/7
R 2EXP6 OUT 7/7
R 2EXP5 OUT 7/7
R 2EXP4 OUT 7/7
R 2EXP3 OUT 7/7
R 2EXP2 OUT 7/7
R 2EXP1 OUT 7/7
R 2EXP0 OUT 7/7
7/7 R1 SCAN
7/7 R 2EXP0 OUT
7/7 R 2EXP1 OUT
7/7 R 2EXP2 OUT
7/7 R 2EXP3 OUT
7/7 R 2EXP4 OUT
7/7 R 2EXP5 OUT
7/7 R 2EXP6 OUT
7/7 R 2EXP7 OUT
<BORD> S134
D601(1/2) 1S2837-T1
<DROP SHADOW> S135
D601(2/2) 1S2837-T1
<SHDW> S136
D602(1/2) 1S2837-T1
<OUT LINE> S137
D602(2/2) 1S2837-T1
<MAIN MASK> S160
D603(1/2) 1S2837-T1
<SUB MASK> S161
D603(2/2) 1S2837-T1
<KEY INV> S162
D604(1/2) 1S2837-T1
<-> S163
D604(2/2) 1S2837-T1
A
G
R1 SCAN AMBER 7/7
R1 SCAN GREEN 7/7
7/7 R2 SCAN
<-> S113
D605(1/2) 1S2837-T1
<-> S114
D605(2/2) 1S2837-T1
<DEPTH KEY> S132
D606(1/2) 1S2837-T1
<PROC KEY> S104
D606(2/2) 1S2837-T1
<UTILITY-1> S164
D607(1/2) 1S2837-T1
<UTILITY-2> S165
D607(2/2) 1S2837-T1
<UTILITY-3> S166
D608(1/2) 1S2837-T1
<UTILITY-4> S167
D608(2/2) 1S2837-T1
R2 SCAN AMBER 7/7
R2 SCAN GREEN 7/7
8
7/7 R3 SCAN
<KEY PRIOR> S231
D609(1/2) 1S2837-T1
<KEY1 ON> S232
D609(2/2) 1S2837-T1
<KEY2 ON> S233
D610(1/2) 1S2837-T1
<FADE TO BLACK> S240
D610(2/2) 1S2837-T1
<BKGD> S230
D611(1/2) 1S2837-T1
<KEY 1> S234
D611(2/2) 1S2837-T1
<KEY 2> S235
D612(1/2) 1S2837-T1
<DSK PVW> S243
D612(2/2) 1S2837-T1
R
R3 SCAN AMBER 7/7
R3 SCAN GREEN 7/7
7/7 R4 SCAN
<MIX> S220
D613(1/2) 1S2837-T1
<WIPE> S221
D613(2/2) 1S2837-T1
<DME> S222
D614(1/2) 1S2837-T1
<DSK ON> S246
D614(2/2) 1S2837-T1
<DSK MIX> S247
D615(1/2) 1S2837-T1
<CUT> S224
D616(1/2) 1S2837-T1
<AUTO TRANS> S225
D616(2/2) 1S2837-T1
R4 SCAN AMBER 7/7
R4 SCAN GREEN 7/7
R-DATA INPUTS 7/7

1

2

3

4

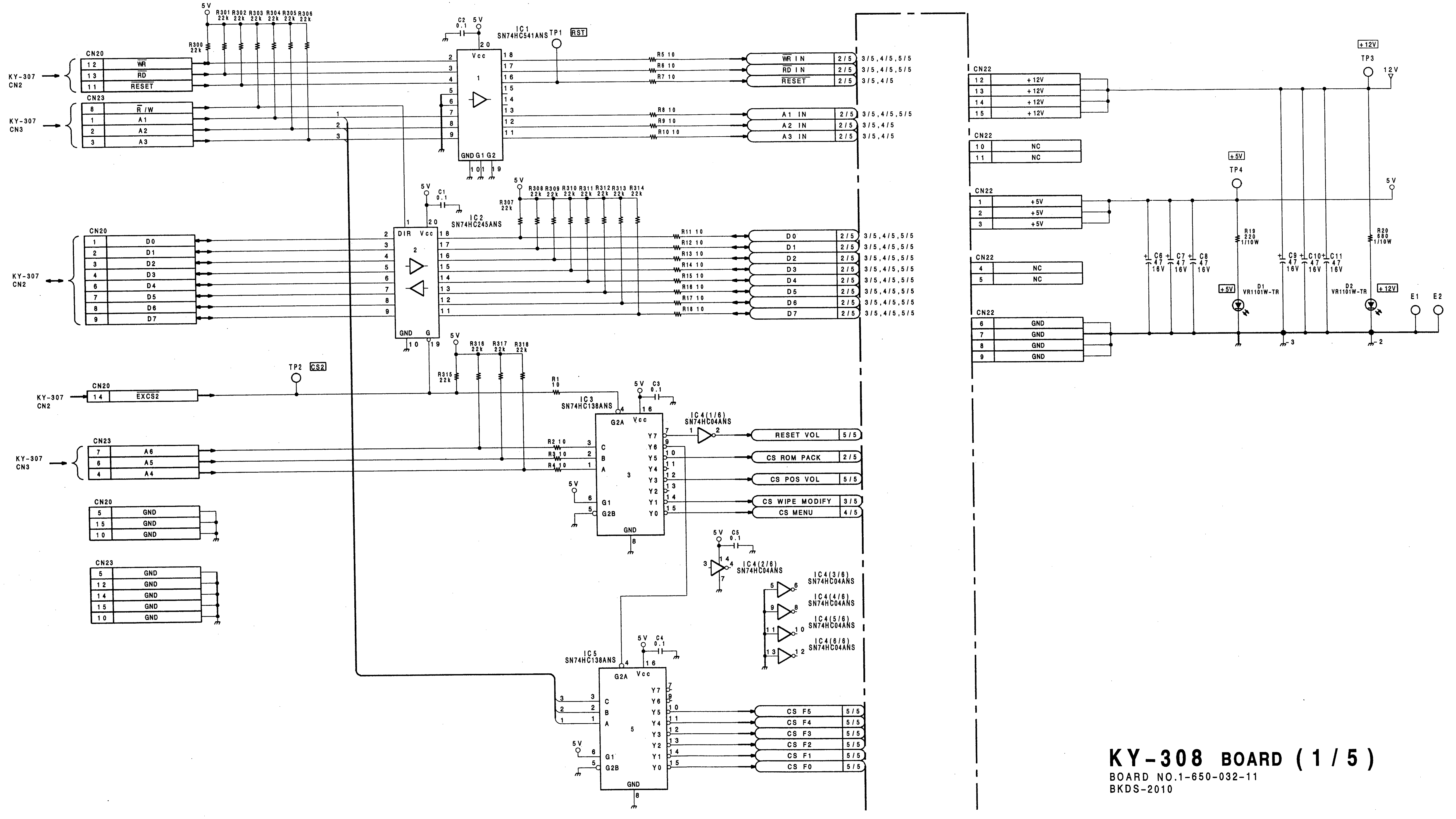
5

KY-307 BOARD (7/7)

BOARD NO.1-650-031-11
BKDS-2010

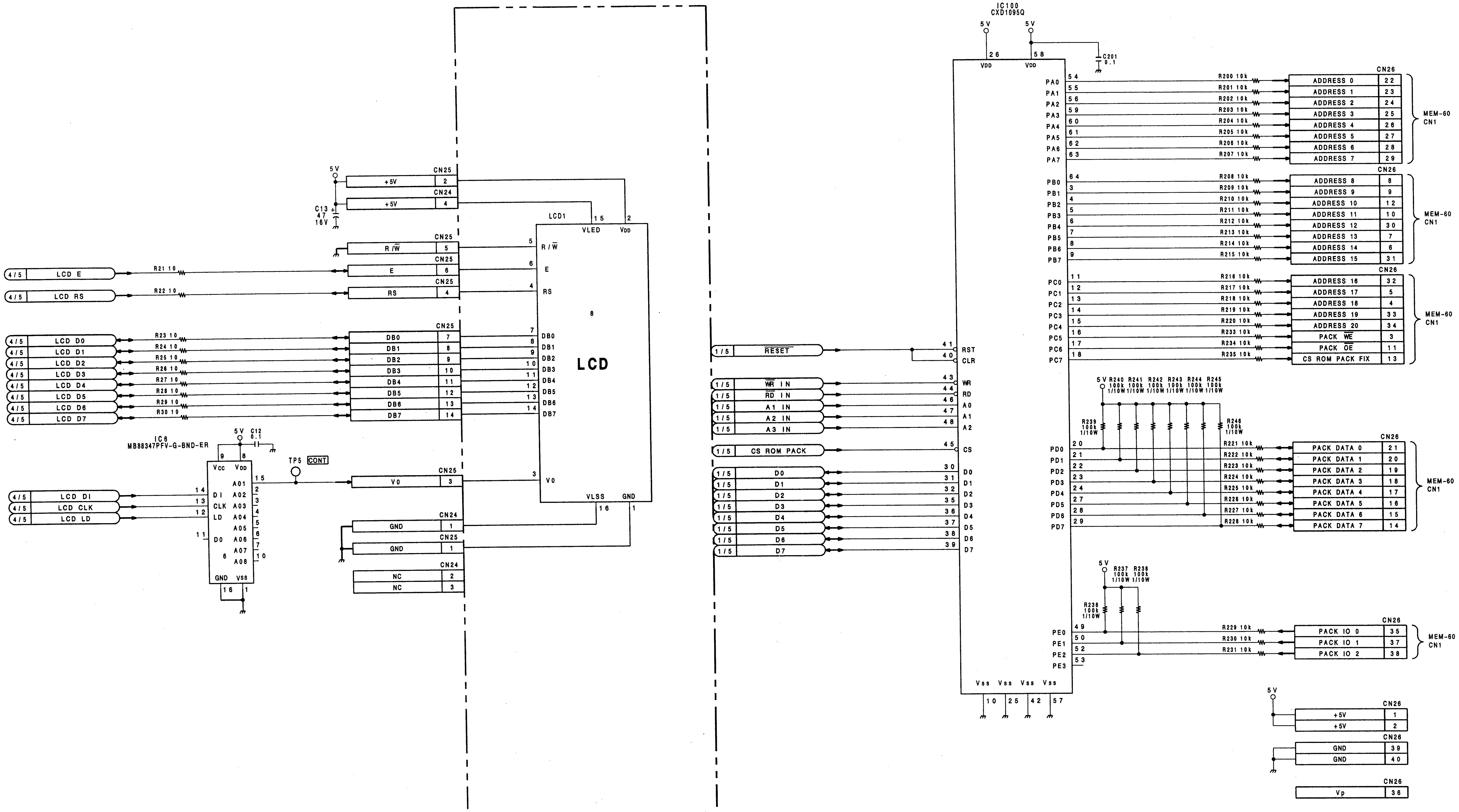
E F G H I J K L

KY-308(1/5);FUNCTION SWITCH


KY-307 CN2
KY-307 CN3
KY-307 CN2
KY-307 CN2
KY-307 CN3
CN20
CN23
CN22
WR
RD
RESET
R/W
A1
A2
A3
D0
D1
D2
D3
D4
D5
D6
D7
EXCS2
A6
A5
A4
GND
IC1 SN74HC541ANS
IC2 SN74HC245ANS
IC3 SN74HC138ANS
IC4(1/6) SN74HC04ANS
IC4(2/6) SN74HC04ANS
IC4(3/6) SN74HC04ANS
IC4(4/6) SN74HC04ANS
IC4(5/6) SN74HC04ANS
IC4(6/6) SN74HC04ANS
IC5 SN74HC138ANS
TP1 RST
TP2 CS2
TP3 +12V
TP4 +5V
R300 22k
R301 R302 R303 R304 R305 R306 22k
R307 22k
R308 R309 R310 R311 R312 R313 R314 22k
R315 22k
R316 R317 R318 22k
R1 10
R2 10
R3 10
R4 10
R5 10
R6 10
R7 10
R8 10
R9 10
R10 10
R11 10
R12 10
R13 10
R14 10
R15 10
R16 10
R17 10
R18 10
C1 0.1
C2 0.1
C3 0.1
C4 0.1
C5 0.1
5V
WR IN 2/5 3/5,4/5,5/5
RD IN 2/5 3/5,4/5,5/5
RESET 2/5 3/5,4/5
A1 IN 2/5 3/5,4/5,5/5
A2 IN 2/5 3/5,4/5
A3 IN 2/5 3/5,4/5
D0 2/5 3/5,4/5,5/5
D1 2/5 3/5,4/5,5/5
D2 2/5 3/5,4/5,5/5
D3 2/5 3/5,4/5,5/5
D4 2/5 3/5,4/5,5/5
D5 2/5 3/5,4/5,5/5
D6 2/5 3/5,4/5,5/5
D7 2/5 3/5,4/5,5/5
RESET VOL 5/5
CS ROM PACK 2/5
CS POS VOL 5/5
CS WIPE MODIFY 3/5
CS MENU 4/5
CS F5 5/5
CS F4 5/5
CS F3 5/5
CS F2 5/5
CS F1 5/5
CS F0 5/5
+12V
NC
+5V
GND
12V
C6 47 16V
C7 47 16V
C8 47 16V
C9 47 16V
C10 47 16V
C11 47 16V
R19 220 1/10W
R20 680 1/10W
D1 VR1101W-TR
D2 VR1101W-TR
E1
E2

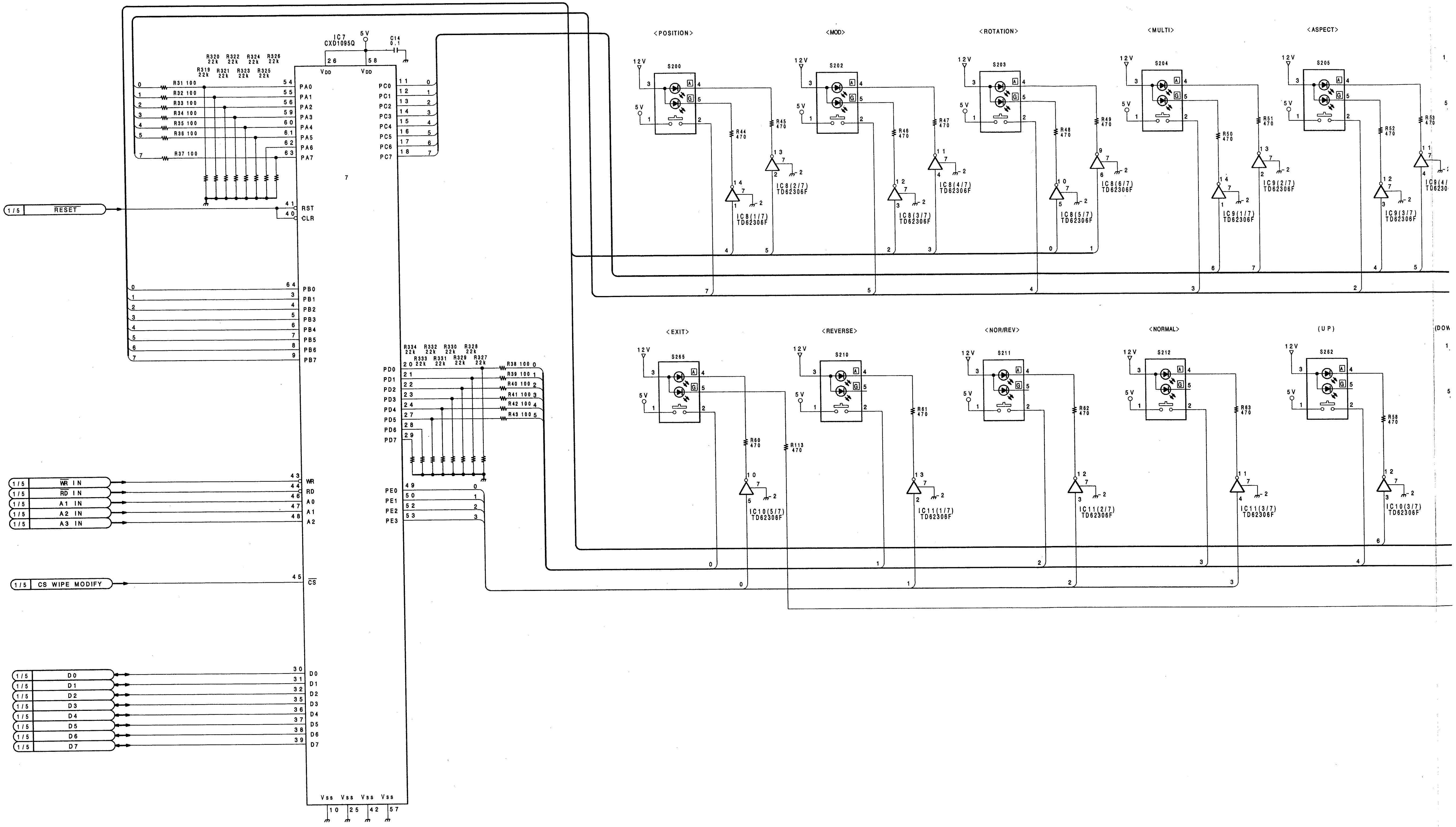
KY-308 BOARD (1/5)
BOARD NO.1-650-032-11
BKDS-2010

KY-308(2/5);FUNCTION SWITCH

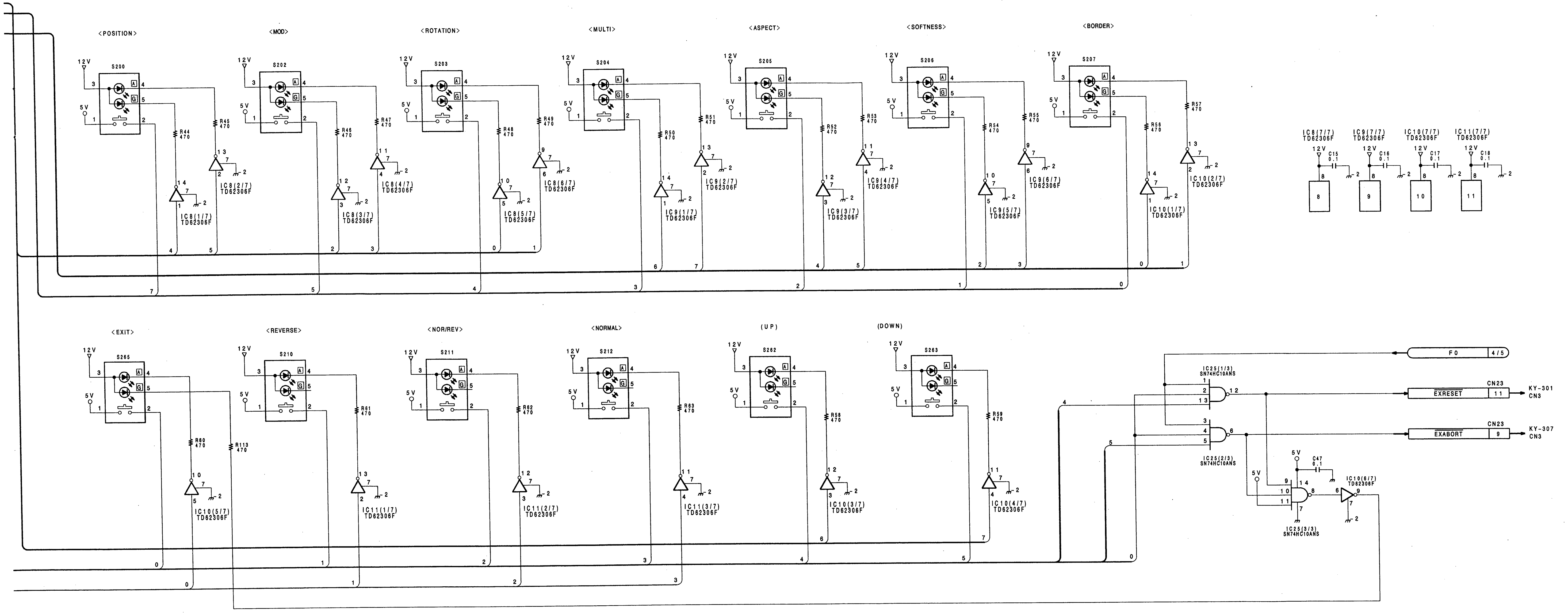

LCD1
LCD
VLED
VDD
R/W
E
RS
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
V0
VLSS
GND
CN25
CN24
+5V
C13 47 16V
LCD E
LCD RS
LCD D0
LCD D1
LCD D2
LCD D3
LCD D4
LCD D5
LCD D6
LCD D7
4/5
R21 10
R22 10
R23 10
R24 10
R25 10
R26 10
R27 10
R28 10
R29 10
R30 10
IC6
MB88347PFV-G-BND-ER
5V C12 0.1
TP5 CONT
LCD DI
LCD CLK
LCD LD
VCC VDD
DI
CLK
LD
DO
A01
A02
A03
A04
A05
A06
A07
A08
GND VSS
NC
IC100
CXD1095Q
5V
C201 0.1
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
PD0
PD1
PD2
PD3
PD4
PD5
PD6
PD7
PE0
PE1
PE2
PE3
RST
CLR
WR
RD
A0
A1
A2
CS
D0
D1
D2
D3
D4
D5
D6
D7
Vss Vss Vss Vss
1/5
RESET
WR IN
RD IN
A1 IN
A2 IN
A3 IN
CS ROM PACK
R200 10k
R201 10k
R202 10k
R203 10k
R204 10k
R205 10k
R206 10k
R207 10k
R208 10k
R209 10k
R210 10k
R211 10k
R212 10k
R213 10k
R214 10k
R215 10k
R216 10k
R217 10k
R218 10k
R219 10k
R220 10k
R233 10k
R234 10k
R235 10k
CN26
ADDRESS 0
ADDRESS 1
ADDRESS 2
ADDRESS 3
ADDRESS 4
ADDRESS 5
ADDRESS 6
ADDRESS 7
ADDRESS 8
ADDRESS 9
ADDRESS 10
ADDRESS 11
ADDRESS 12
ADDRESS 13
ADDRESS 14
ADDRESS 15
ADDRESS 16
ADDRESS 17
ADDRESS 18
ADDRESS 19
ADDRESS 20
PACK WE
PACK OE
CS ROM PACK FIX
MEM-60 CN1
5V R240 R241 R242 R243 R244 R245 100k 100k 100k 100k 100k 100k 1/10W 1/10W 1/10W 1/10W 1/10W 1/10W
R239 100k 1/10W
R246 100k 1/10W
R221 10k
R222 10k
R223 10k
R224 10k
R225 10k
R226 10k
R227 10k
R228 10k
PACK DATA 0
PACK DATA 1
PACK DATA 2
PACK DATA 3
PACK DATA 4
PACK DATA 5
PACK DATA 6
PACK DATA 7
5V R237 R238 100k 100k 1/10W 1/10W
R236 100k 1/10W
R229 10k
R230 10k
R231 10k
PACK IO 0
PACK IO 1
PACK IO 2
GND
Vp

KY-308 BOARD (2/5)
BOARD NO.1-650-032-11
BKDS-2010

KY-308(3/5);FUNCTION SWITCH


IC7
CXD1095Q
5V
C14
0.1
R320 22k
R322 22k
R324 22k
R326 22k
R319 22k
R321 22k
R323 22k
R325 22k
R31 100
R32 100
R33 100
R34 100
R35 100
R36 100
R37 100
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
VDD
RST
CLR
1/5
RESET
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
R334 22k
R332 22k
R330 22k
R328 22k
R333 22k
R331 22k
R329 22k
R327 22k
R38 100
R39 100
R40 100
R41 100
R42 100
R43 100
PD0
PD1
PD2
PD3
PD4
PD5
PD6
PD7
PE0
PE1
PE2
PE3
WR IN
RD IN
A1 IN
A2 IN
A3 IN
WR
RD
A0
A1
A2
CS WIPE MODIFY
CS
D0
D1
D2
D3
D4
D5
D6
D7
Vss
<POSITION>
<MOD>
<ROTATION>
<MULTI>
<ASPECT>
12V
5V
S200
S202
S203
S204
S205
R44 470
R45 470
R46 470
R47 470
R48 470
R49 470
R50 470
R51 470
R52 470
R53 470
IC8(1/7) TD62306F
IC8(2/7) TD62306F
IC8(3/7) TD62306F
IC8(4/7) TD62306F
IC8(5/7) TD62306F
IC8(6/7) TD62306F
IC9(1/7) TD62306F
IC9(2/7) TD62306F
IC9(3/7) TD62306F
IC9(4/7) TD6230
<EXIT>
<REVERSE>
<NOR/REV>
<NORMAL>
(UP)
(DOW
S265
S210
S211
S212
S262
R60 470
R113 470
R61 470
R62 470
R63 470
R58 470
IC10(5/7) TD62306F
IC11(1/7) TD62306F
IC11(2/7) TD62306F
IC11(3/7) TD62306F
IC10(3/7) TD62306F

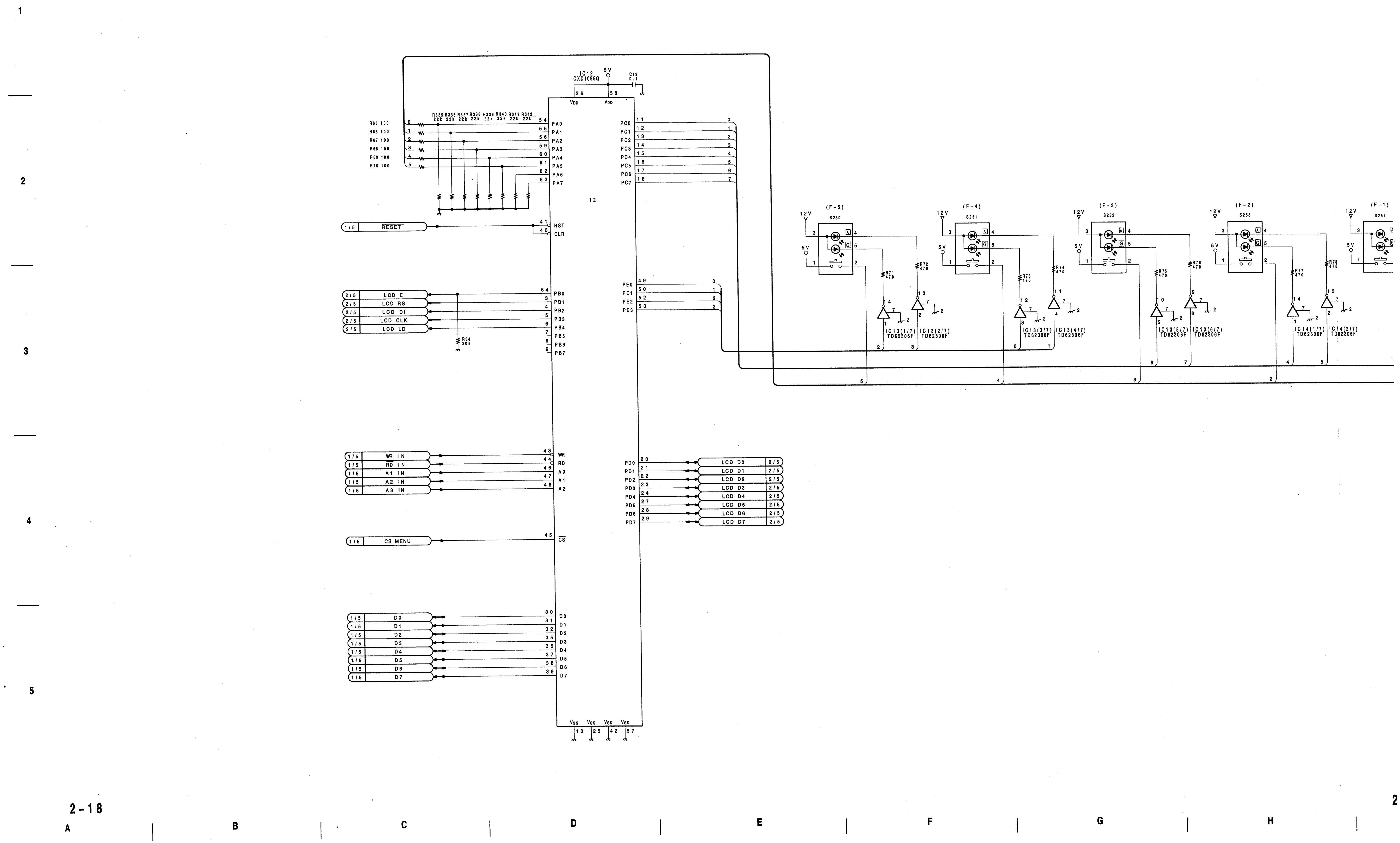
A | B | C | D | E | F | G | H


<POSITION>
<MOD>
<ROTATION>
<MULTI>
<ASPECT>
<SOFTNESS>
<BORDER>
12V
5V
S200
S202
S203
S204
S205
S206
S207
A
G
R44 470
R45 470
R46 470
R47 470
R48 470
R49 470
R50 470
R51 470
R52 470
R53 470
R54 470
R55 470
R56 470
R57 470
IC8(1/7) TD62306F
IC8(2/7) TD62306F
IC8(3/7) TD62306F
IC8(4/7) TD62306F
IC8(5/7) TD62306F
IC8(6/7) TD62306F
IC9(1/7) TD62306F
IC9(2/7) TD62306F
IC9(3/7) TD62306F
IC9(4/7) TD62306F
IC9(5/7) TD62306F
IC9(6/7) TD62306F
IC10(1/7) TD62306F
IC10(2/7) TD62306F
IC8(7/7) TD62306F
IC9(7/7) TD62306F
IC10(7/7) TD62306F
IC11(7/7) TD62306F
C15 0.1
C16 0.1
C17 0.1
C18 0.1
<EXIT>
<REVERSE>
<NOR/REV>
<NORMAL>
(UP)
(DOWN)
S265
S210
S211
S212
S262
S263
R60 470
R113 470
R61 470
R62 470
R63 470
R58 470
R59 470
IC10(5/7) TD62306F
IC11(1/7) TD62306F
IC11(2/7) TD62306F
IC11(3/7) TD62306F
IC10(3/7) TD62306F
IC10(4/7) TD62306F
IC25(1/3) SN74HC10ANS
IC25(2/3) SN74HC10ANS
IC25(3/3) SN74HC10ANS
IC10(6/7) TD62306F
C47 0.1
F0 4/5
CN23
EXRESET 11
KY-301 CN3
EXABORT 9
KY-307 CN3

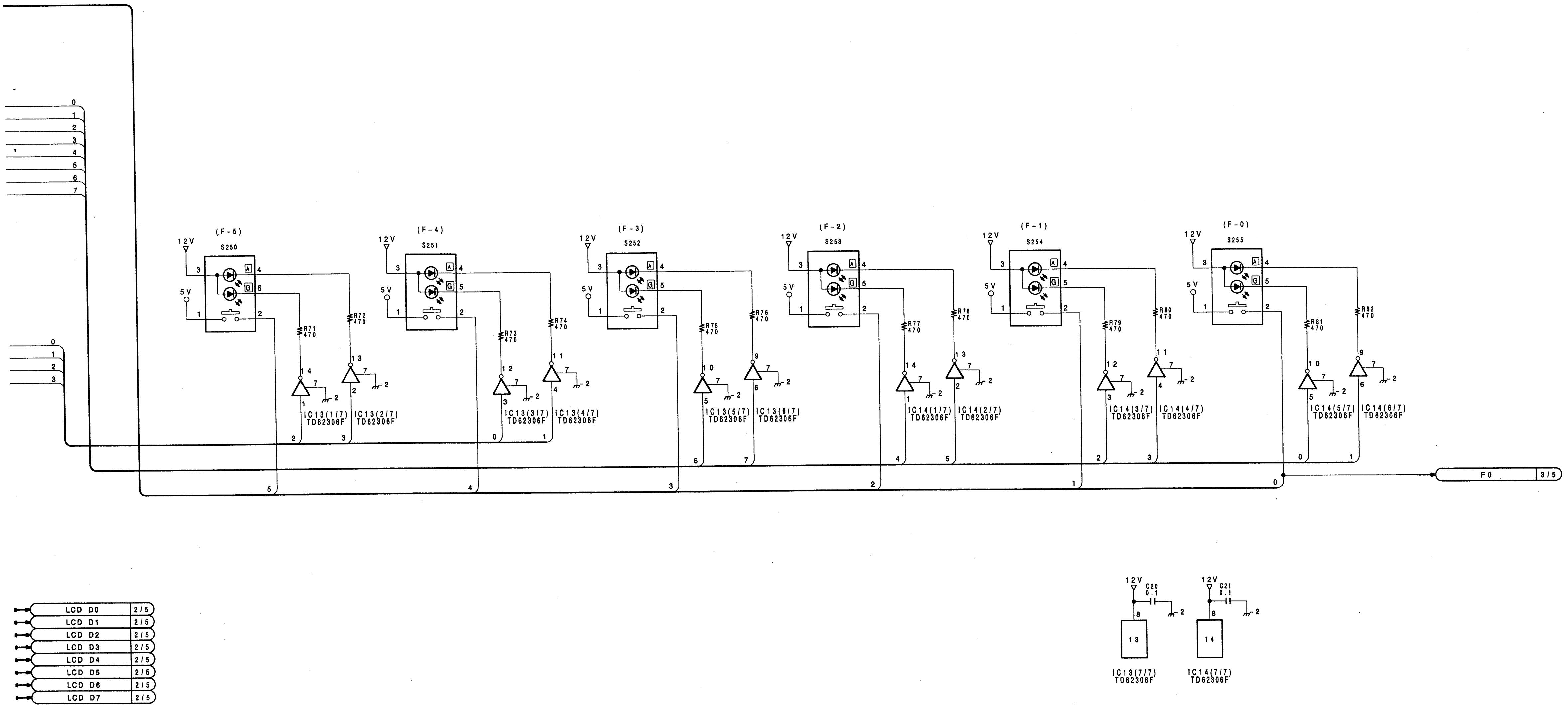
KY-308 BOARD (3/5)

BOARD NO.1-650-032-11
BKDS-2010

KY-308(4/5);FUNCTION SWITCH



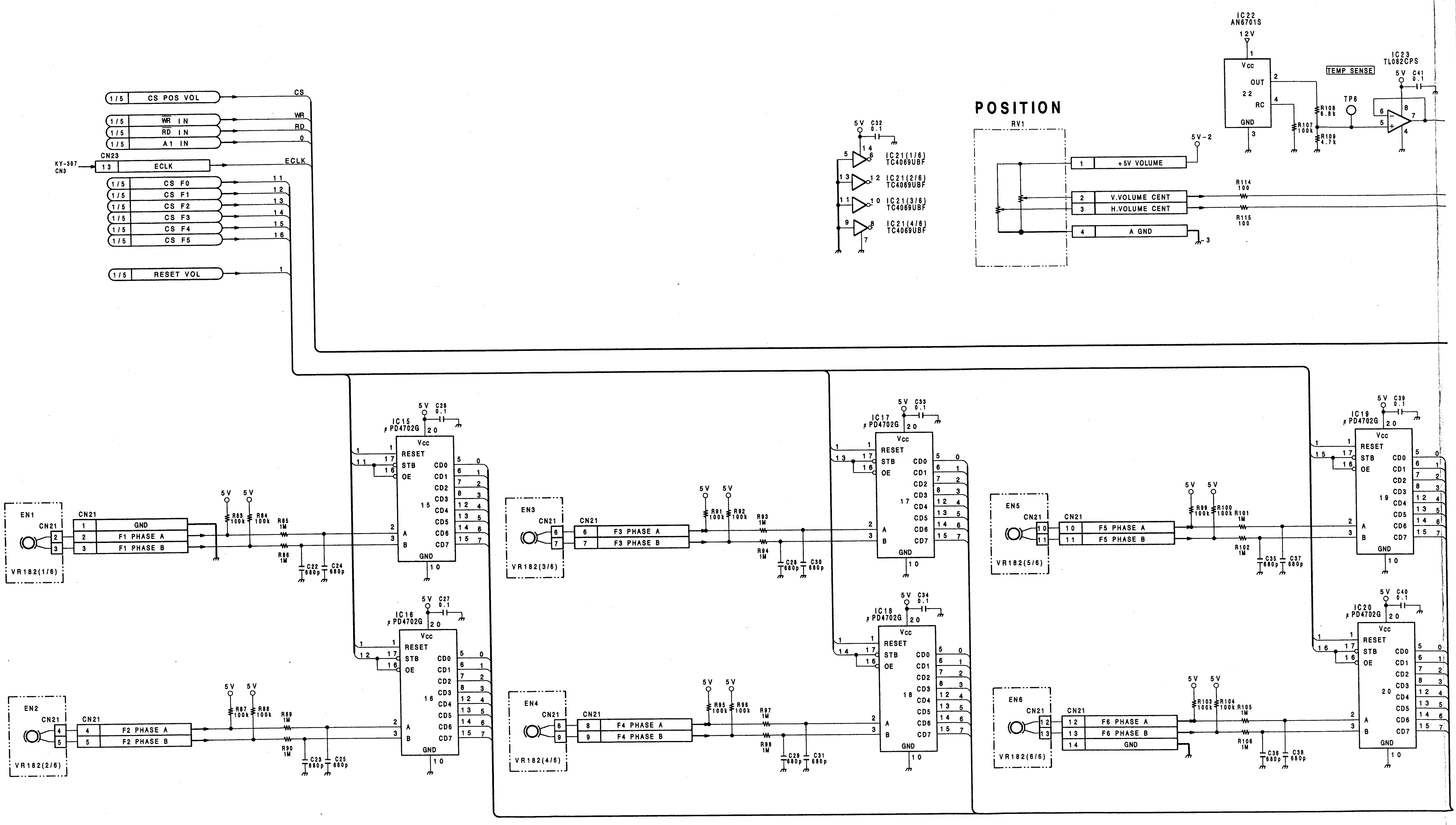
1
2
3
4
5
A
B
C
D
E
F
G
H
IC12
CXD1095Q
5V
C19
0.1
VDD
VDD
26
58
R65 100
R66 100
R67 100
R68 100
R69 100
R70 100
R335 R336 R337 R338 R339 R340 R341 R342
22k 22k 22k 22k 22k 22k 22k 22k
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
RST
CLR
1/5 RESET
2/5 LCD E
2/5 LCD RS
2/5 LCD DI
2/5 LCD CLK
2/5 LCD LD
R64
20k
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PC0
PC1
PC2
PC3
PC4
PC5
PC6
PC7
PE0
PE1
PE2
PE3
1/5 WR IN
1/5 RD IN
1/5 A1 IN
1/5 A2 IN
1/5 A3 IN
WR
RD
A0
A1
A2
1/5 CS MENU
CS
PD0
PD1
PD2
PD3
PD4
PD5
PD6
PD7
LCD D0 2/5
LCD D1 2/5
LCD D2 2/5
LCD D3 2/5
LCD D4 2/5
LCD D5 2/5
LCD D6 2/5
LCD D7 2/5
1/5 D0
1/5 D1
1/5 D2
1/5 D3
1/5 D4
1/5 D5
1/5 D6
1/5 D7
Vss Vss Vss Vss
10 25 42 57
12V
(F-5)
S250
(F-4)
S251
(F-3)
S252
(F-2)
S253
(F-1)
S254
R71 470
R72 470
R73 470
R74 470
R75 470
R76 470
R77 470
R78 470
IC13(1/7) TD62306F
IC13(2/7) TD62306F
IC13(3/7) TD62306F
IC13(4/7) TD62306F
IC13(5/7) TD62306F
IC13(6/7) TD62306F
IC14(1/7) TD62306F
IC14(2/7) TD62306F


(F-5)
S250
(F-4)
S251
(F-3)
S252
(F-2)
S253
(F-1)
S254
(F-0)
S255
12V
5V
R71 470
R72 470
R73 470
R74 470
R75 470
R76 470
R77 470
R78 470
R79 470
R80 470
R81 470
R82 470
IC13(1/7) TD62306F
IC13(2/7) TD62306F
IC13(3/7) TD62306F
IC13(4/7) TD62306F
IC13(5/7) TD62306F
IC13(6/7) TD62306F
IC14(1/7) TD62306F
IC14(2/7) TD62306F
IC14(3/7) TD62306F
IC14(4/7) TD62306F
IC14(5/7) TD62306F
IC14(6/7) TD62306F
F0 3/5
LCD D0 2/5
LCD D1 2/5
LCD D2 2/5
LCD D3 2/5
LCD D4 2/5
LCD D5 2/5
LCD D6 2/5
LCD D7 2/5
C20 0.1
C21 0.1
IC13(7/7) TD62306F
IC14(7/7) TD62306F

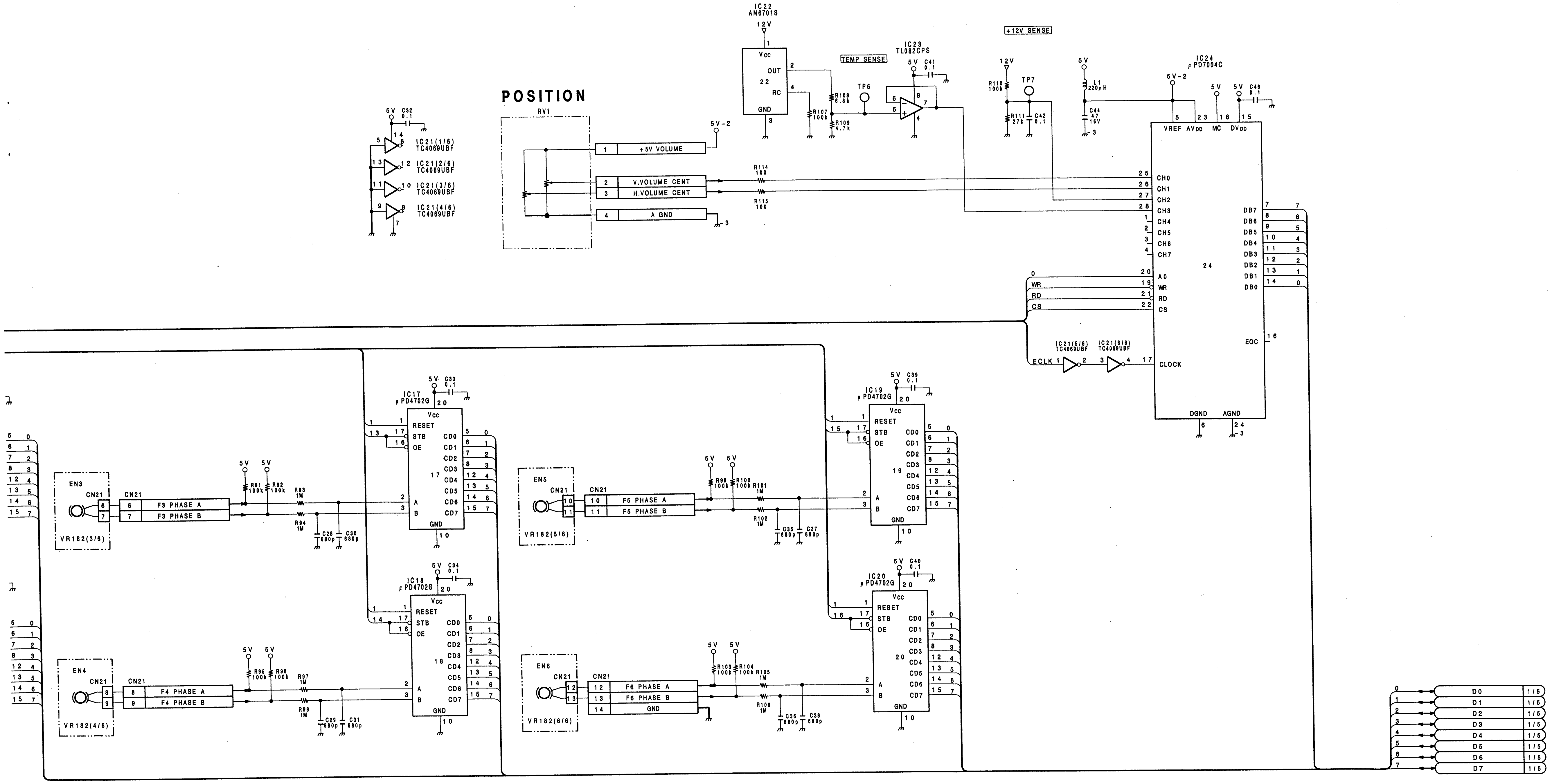
KY-308 BOARD (4/5)

BOARD NO.1-650-032-11
BKDS-2010

KY-308(5/5);FUNCTION SWITCH


1/5 CS POS VOL
CS
1/5 WR IN
1/5 RD IN
1/5 A1 IN
WR
RD
0
KY-307 CN3
CN23
13 ECLK
ECLK
1/5 CS F0
1/5 CS F1
1/5 CS F2
1/5 CS F3
1/5 CS F4
1/5 CS F5
11
12
13
14
15
16
1/5 RESET VOL
1
5V C32 0.1
IC21(1/6) TC4069UBF
IC21(2/6) TC4069UBF
IC21(3/6) TC4069UBF
IC21(4/6) TC4069UBF
POSITION
RV1
+5V VOLUME
V.VOLUME CENT
H.VOLUME CENT
A GND
5V-2
R114 100
R115 100
IC22 AN6701S
12V
Vcc
OUT
22
RC
GND
R108 6.8k
R107 100k
R109 4.7k
TEMP SENSE
TP6
IC23 TL082CPS
5V C41 0.1
EN1
CN21
GND
F1 PHASE A
F1 PHASE B
VR182(1/6)
5V
R83 100k
R84 100k
R85 1M
R86 1M
C22 680p
C24 680p
IC15 μPD4702G
5V C26 0.1
Vcc
RESET
STB
OE
CD0
CD1
CD2
CD3
CD4
CD5
CD6
CD7
A
B
GND
EN2
F2 PHASE A
F2 PHASE B
VR182(2/6)
R87 100k
R88 100k
R89 1M
R90 1M
C23 680p
C25 680p
IC16 μPD4702G
5V C27 0.1
EN3
F3 PHASE A
F3 PHASE B
VR182(3/6)
R91 100k
R92 100k
R93 1M
R94 1M
C28 680p
C30 680p
IC17 μPD4702G
5V C33 0.1
EN4
F4 PHASE A
F4 PHASE B
VR182(4/6)
R95 100k
R96 100k
R97 1M
R98 1M
C29 680p
C31 680p
IC18 μPD4702G
5V C34 0.1
EN5
F5 PHASE A
F5 PHASE B
VR182(5/6)
R99 100k
R100 100k
R101 1M
R102 1M
C35 680p
C37 680p
IC19 μPD4702G
5V C39 0.1
EN6
F6 PHASE A
F6 PHASE B
GND
VR182(6/6)
R103 100k
R104 100k
R105 1M
R106 1M
C36 680p
C38 680p
IC20 μPD4702G
5V C40 0.1

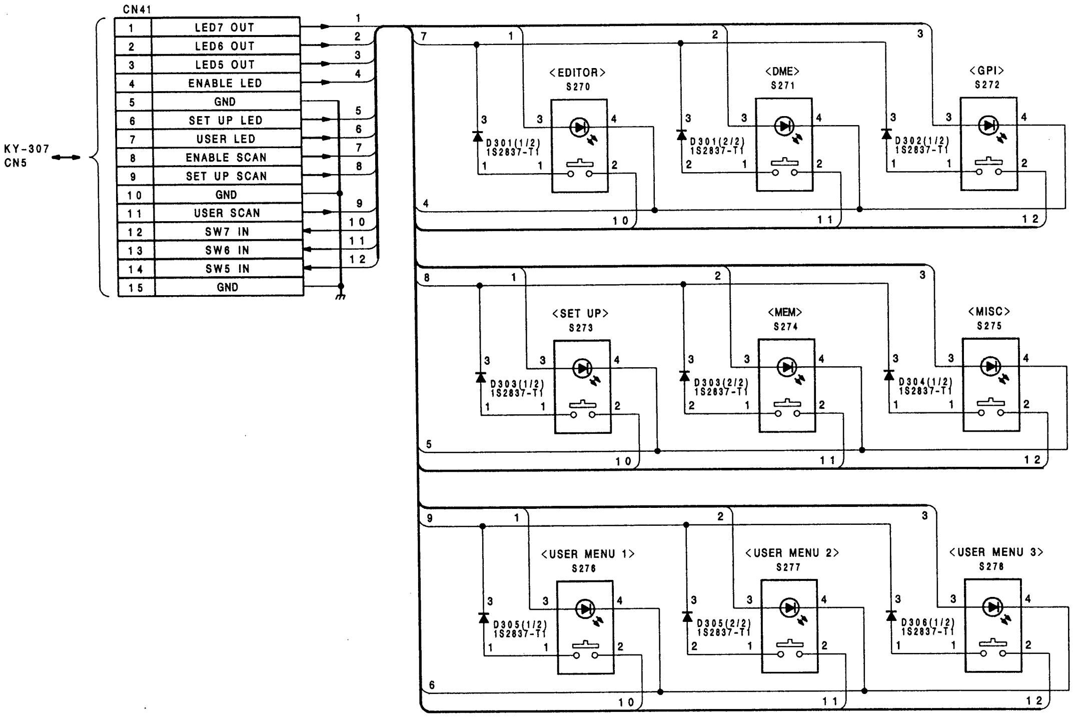
A B C D E F G H


POSITION
RV1
+5V VOLUME
V.VOLUME CENT
H.VOLUME CENT
A GND
IC22
AN6701S
TEMP SENSE
IC23
TL082CPS
+12V SENSE
TP6
TP7
IC24
μPD7004C
CH0
CH1
CH2
CH3
CH4
CH5
CH6
CH7
A0
WR
RD
CS
CLOCK
EOC
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DB0
VREF
AVDD
MC
DVDD
DGND
AGND
ECLK
IC21(1/6) TC4069UBF
IC21(2/6) TC4069UBF
IC21(3/6) TC4069UBF
IC21(4/6) TC4069UBF
IC21(5/6) TC4069UBF
IC21(6/6) TC4069UBF
IC17 μPD4702G
IC18 μPD4702G
IC19 μPD4702G
IC20 μPD4702G
RESET
STB
OE
CD0
CD1
CD2
CD3
CD4
CD5
CD6
CD7
EN3
EN4
EN5
EN6
CN21
VR182(3/6)
VR182(4/6)
VR182(5/6)
VR182(6/6)
F3 PHASE A
F3 PHASE B
F4 PHASE A
F4 PHASE B
F5 PHASE A
F5 PHASE B
F6 PHASE A
F6 PHASE B
GND
D0
D1
D2
D3
D4
D5
D6
D7
1/5

KY-308 BOARD (5/5)

BOARD NO.1-650-032-11
BKDS-2010

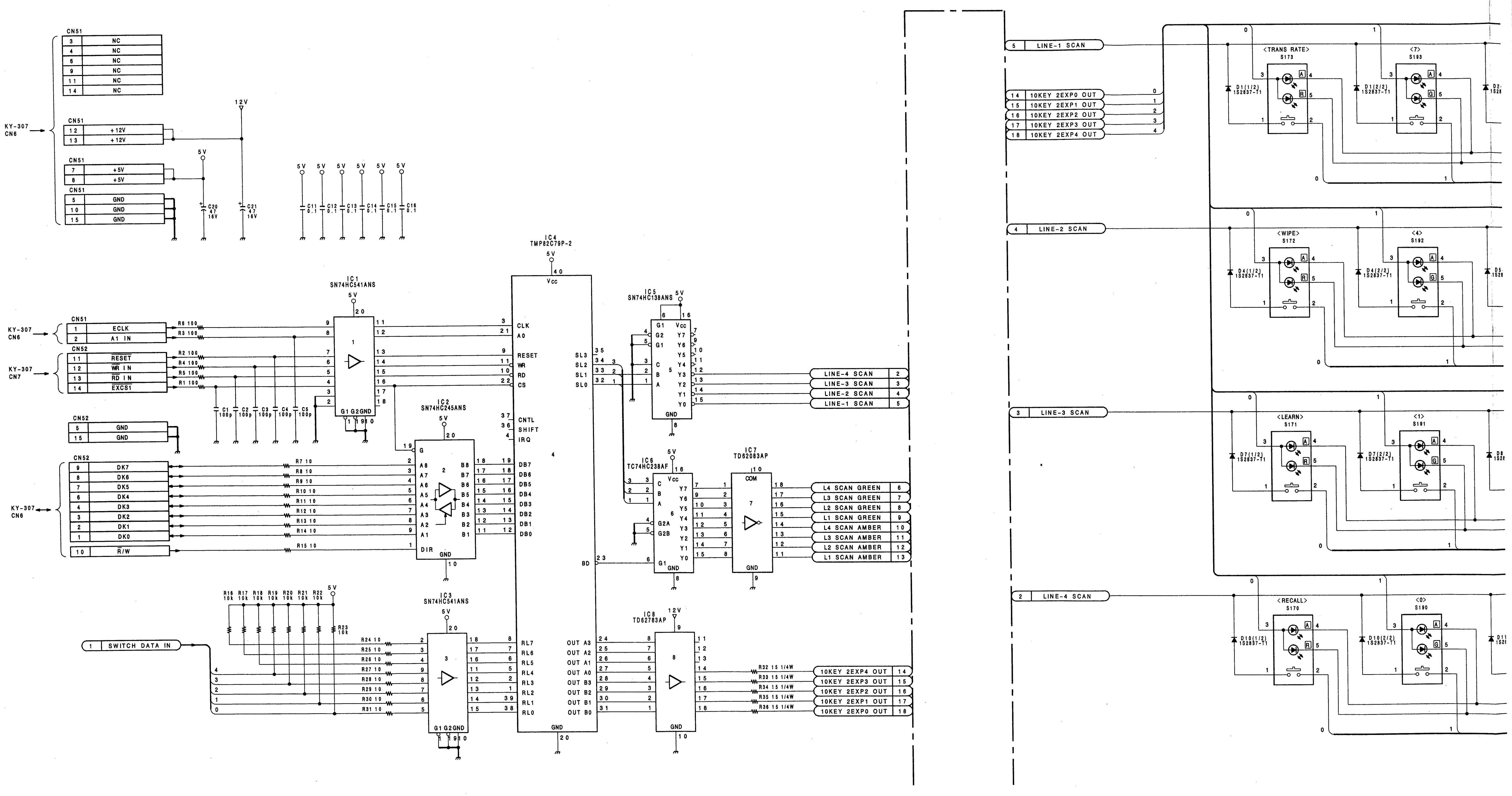
KY-291;SETUP SWITCH

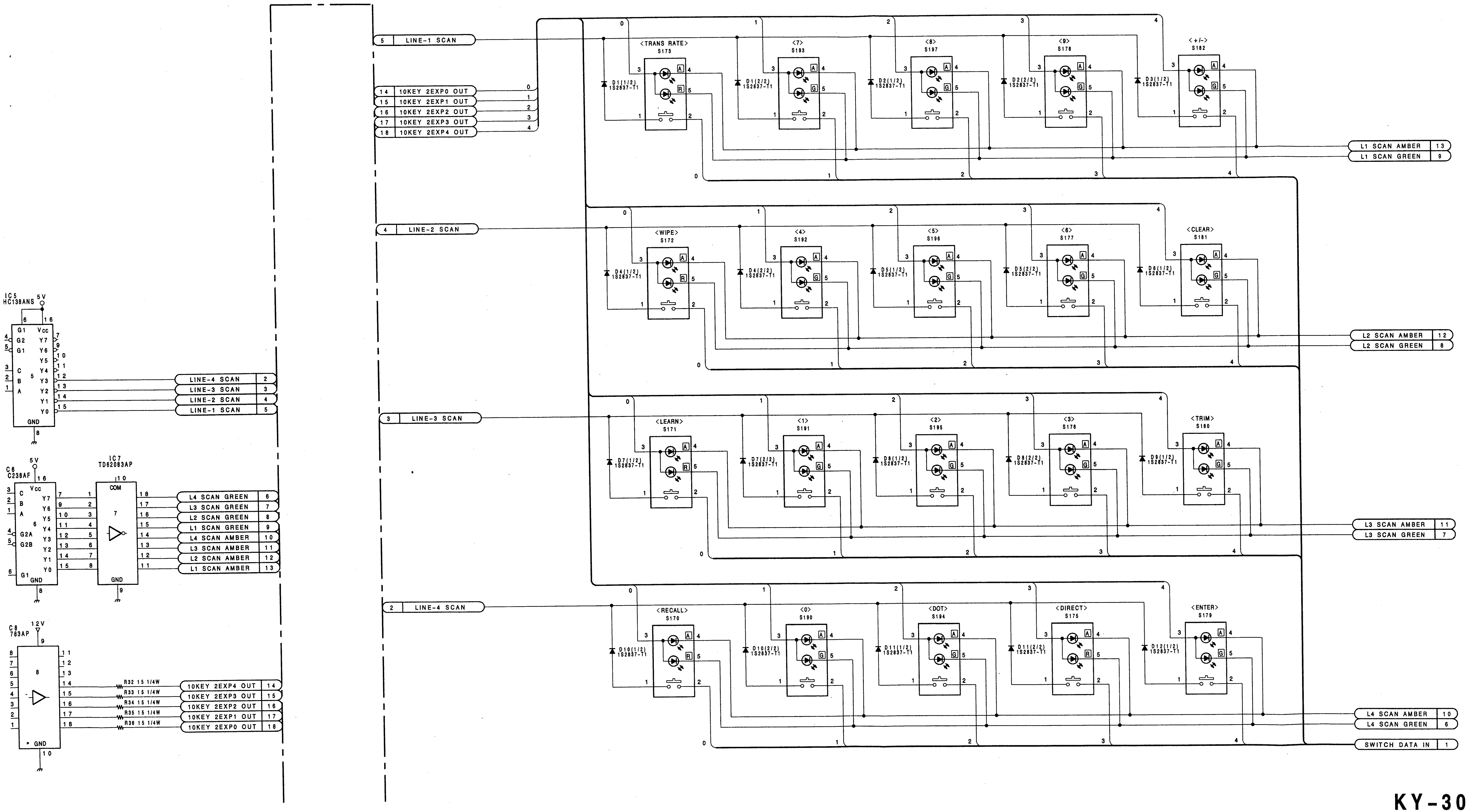

CN41
1 LED7 OUT
2 LED6 OUT
3 LED5 OUT
4 ENABLE LED
5 GND
6 SET UP LED
7 USER LED
8 ENABLE SCAN
9 SET UP SCAN
10 GND
11 USER SCAN
12 SW7 IN
13 SW6 IN
14 SW5 IN
15 GND
KY-307
CN5
<EDITOR>
S270
<DME>
S271
<GPI>
S272
<SET UP>
S273
<MEM>
S274
<MISC>
S275
<USER MENU 1>
S276
<USER MENU 2>
S277
<USER MENU 3>
S278
D301(1/2)
1S2837-T1
D301(2/2)
1S2837-T1
D302(1/2)
1S2837-T1
D303(1/2)
1S2837-T1
D303(2/2)
1S2837-T1
D304(1/2)
1S2837-T1
D305(1/2)
1S2837-T1
D305(2/2)
1S2837-T1
D306(1/2)
1S2837-T1

KY-291 BOARD

BOARD NO.1-650-033-11
BKDS-2010

KY-306;10 KEY SWITCH

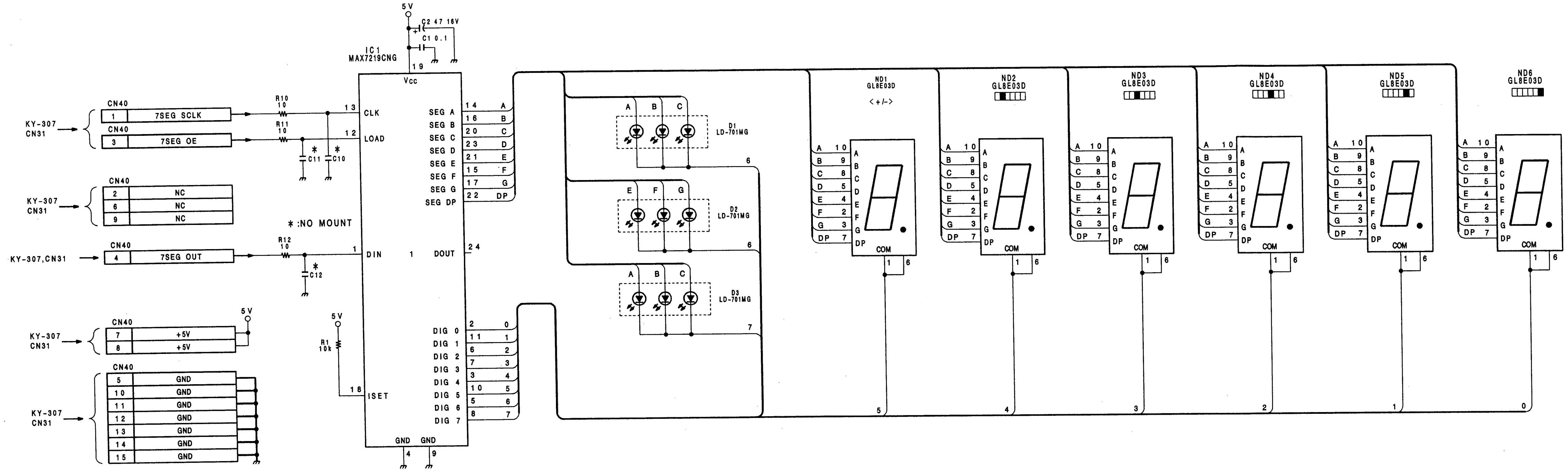

CN51
NC
+12V
+5V
GND
KY-307 CN6
12V
5V
C20 47 16V
C21 47 16V
C11 0.1
C12 0.1
C13 0.1
C14 0.1
C15 0.1
C16 0.1
ECLK
A1 IN
CN52
RESET
WR IN
RD IN
EXCS1
KY-307 CN7
C1 100p
C2 100p
C3 100p
C4 100p
C5 100p
IC1 SN74HC541ANS
IC2 SN74HC245ANS
IC3 SN74HC541ANS
IC4 TMP82C79P-2
IC5 SN74HC138ANS
IC6 TC74HC238AF
IC7 TD62083AP
IC8 TD62783AP
DK7
DK6
DK5
DK4
DK3
DK2
DK1
DK0
R/W
SWITCH DATA IN
CLK
A0
RD
CS
CNTL
SHIFT
IRQ
DB7
DB6
DB5
DB4
DB3
DB2
DB1
DB0
SL3
SL2
SL1
SL0
BD
RL7
RL6
RL5
RL4
RL3
RL2
RL1
RL0
OUT A3
OUT A2
OUT A1
OUT A0
OUT B3
OUT B2
OUT B1
OUT B0
LINE-4 SCAN
LINE-3 SCAN
LINE-2 SCAN
LINE-1 SCAN
L4 SCAN GREEN
L3 SCAN GREEN
L2 SCAN GREEN
L1 SCAN GREEN
L4 SCAN AMBER
L3 SCAN AMBER
L2 SCAN AMBER
L1 SCAN AMBER
10KEY 2EXP4 OUT
10KEY 2EXP3 OUT
10KEY 2EXP2 OUT
10KEY 2EXP1 OUT
10KEY 2EXP0 OUT
R32 15 1/4W
R33 15 1/4W
R34 15 1/4W
R35 15 1/4W
R36 15 1/4W
R16 10k
R17 10k
R18 10k
R19 10k
R20 10k
R21 10k
R22 10k
R23 10k
<TRANS RATE> S173
<7> S193
<WIPE> S172
<4> S192
<LEARN> S171
<1> S191
<RECALL> S170
<0> S190
D1(1/2) 1S2837-T1
D1(2/2) 1S2837-T1
D4(1/2) 1S2837-T1
D4(2/2) 1S2837-T1
D7(1/2) 1S2837-T1
D7(2/2) 1S2837-T1
D10(1/2) 1S2837-T1
D10(2/2) 1S2837-T1


IC5 HC138ANS
5V
G1 Vcc
G2 Y7
G1 Y6
Y5
C Y4
B Y3
A Y2
Y1
Y0
GND
LINE-4 SCAN 2
LINE-3 SCAN 3
LINE-2 SCAN 4
LINE-1 SCAN 5
IC6 HC238AF
IC7 TD62083AP
COM
GND
L4 SCAN GREEN 6
L3 SCAN GREEN 7
L2 SCAN GREEN 8
L1 SCAN GREEN 9
L4 SCAN AMBER 10
L3 SCAN AMBER 11
L2 SCAN AMBER 12
L1 SCAN AMBER 13
IC8 783AP
12V
R32 15 1/4W
R33 15 1/4W
R34 15 1/4W
R35 15 1/4W
R36 15 1/4W
10KEY 2EXP4 OUT 14
10KEY 2EXP3 OUT 15
10KEY 2EXP2 OUT 16
10KEY 2EXP1 OUT 17
10KEY 2EXP0 OUT 18
5 LINE-1 SCAN
14 10KEY 2EXP0 OUT
15 10KEY 2EXP1 OUT
16 10KEY 2EXP2 OUT
17 10KEY 2EXP3 OUT
18 10KEY 2EXP4 OUT
4 LINE-2 SCAN
3 LINE-3 SCAN
2 LINE-4 SCAN
<TRANS RATE> S173
<7> S193
<8> S197
<9> S178
<+/-> S182
<WIPE> S172
<4> S192
<5> S196
<6> S177
<CLEAR> S181
<LEARN> S171
<1> S191
<2> S195
<3> S176
<TRIM> S180
<RECALL> S170
<0> S190
<DOT> S194
<DIRECT> S175
<ENTER> S179
D1(1/2) 1S2837-T1
D1(2/2) 1S2837-T1
D2(1/2) 1S2837-T1
D2(2/2) 1S2837-T1
D3(1/2) 1S2837-T1
D4(1/2) 1S2837-T1
D4(2/2) 1S2837-T1
D5(1/2) 1S2837-T1
D5(2/2) 1S2837-T1
D6(1/2) 1S2837-T1
D7(1/2) 1S2837-T1
D7(2/2) 1S2837-T1
D8(1/2) 1S2837-T1
D8(2/2) 1S2837-T1
D9(1/2) 1S2837-T1
D10(1/2) 1S2837-T1
D10(2/2) 1S2837-T1
D11(1/2) 1S2837-T1
D11(2/2) 1S2837-T1
D12(1/2) 1S2837-T1
A
G
R
L1 SCAN AMBER 13
L1 SCAN GREEN 9
L2 SCAN AMBER 12
L2 SCAN GREEN 8
L3 SCAN AMBER 11
L3 SCAN GREEN 7
L4 SCAN AMBER 10
L4 SCAN GREEN 6
SWITCH DATA IN 1
1
2
3
4
5

KY-306 BOARD

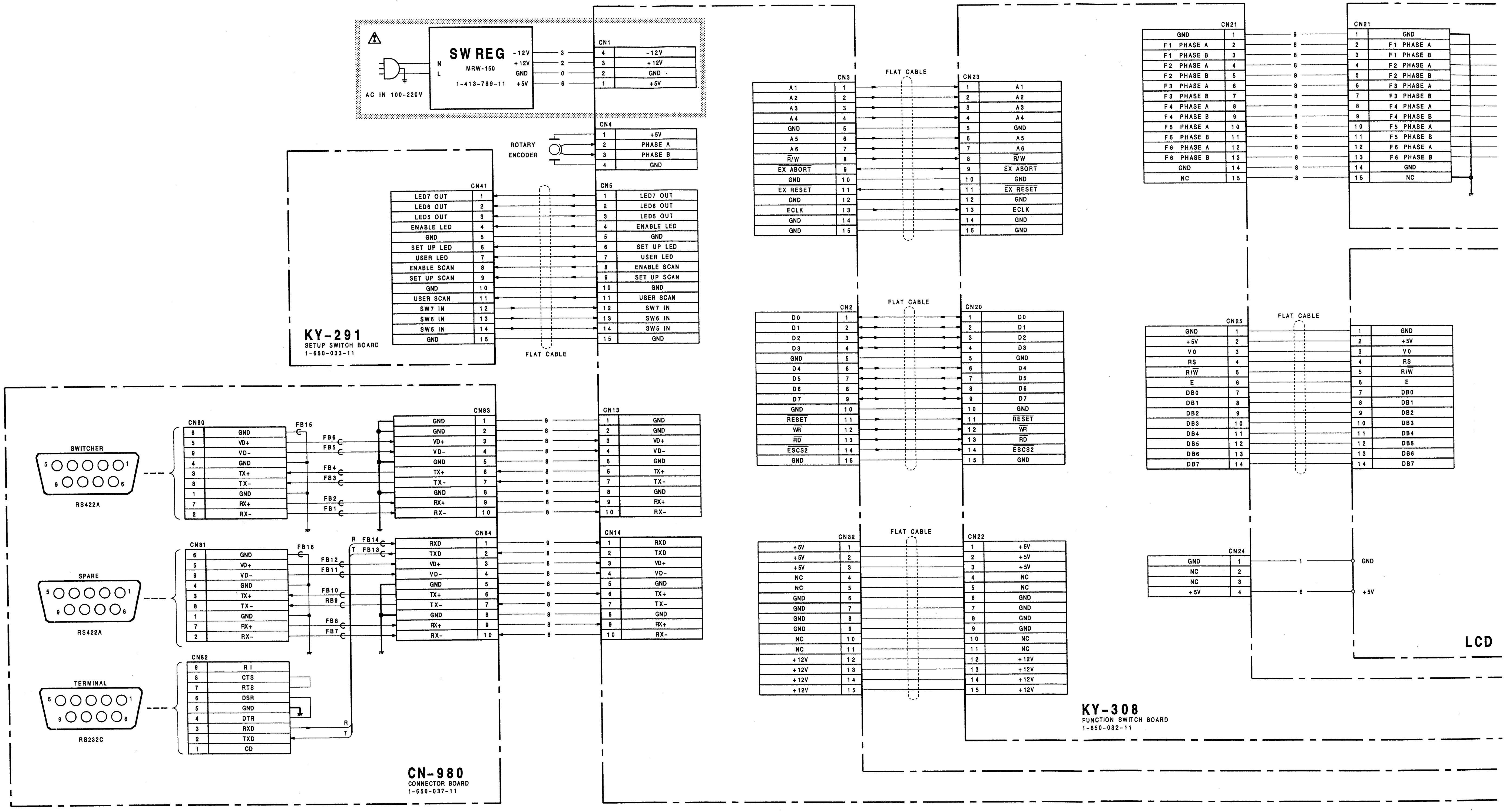
BOARD NO.1-650-030-11
BKDS-2010

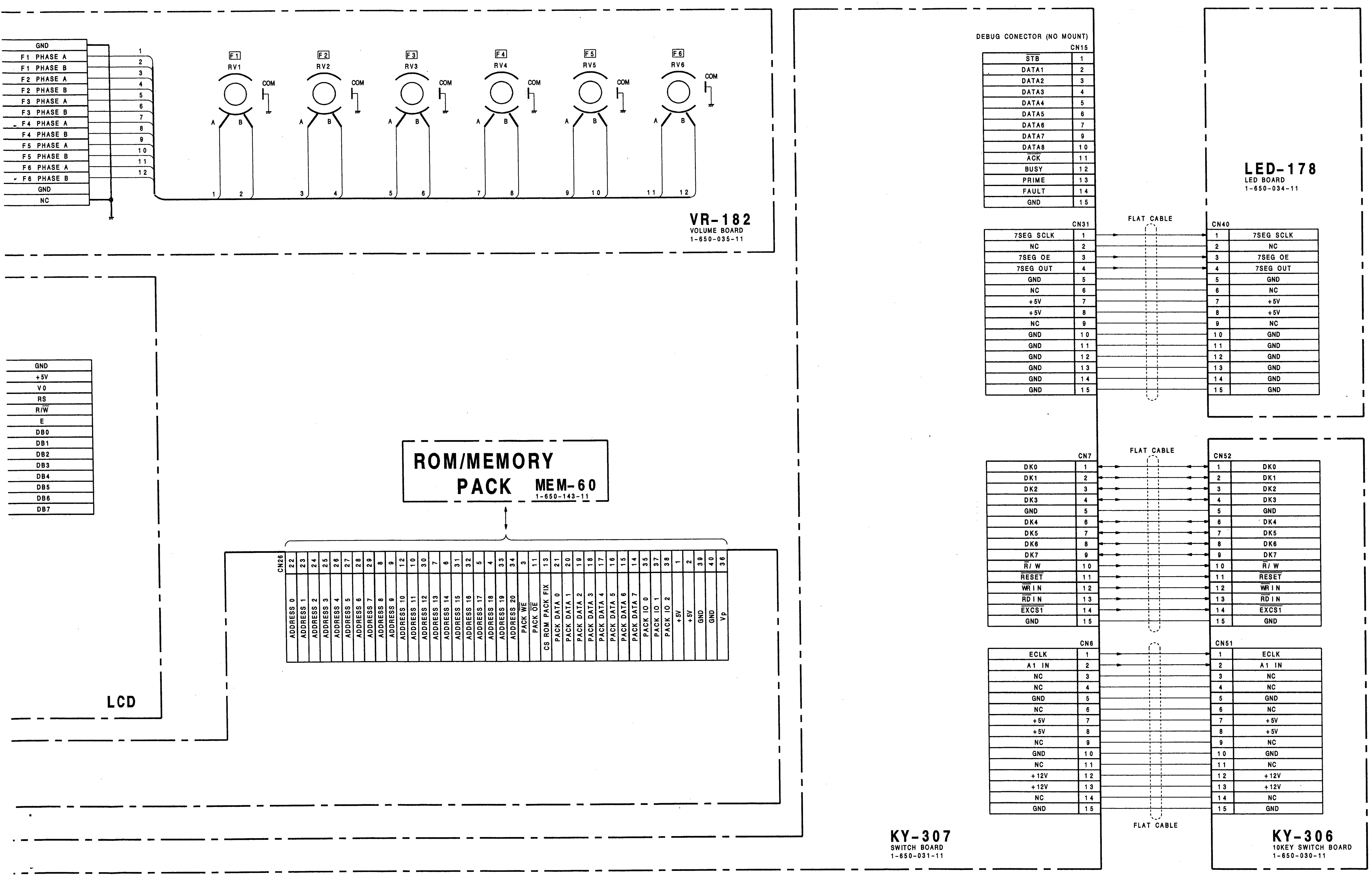
LED-178;LED


CN40
1
7SEG SCLK
3
7SEG OE
KY-307
CN31
2
NC
6
NC
9
NC
4
7SEG OUT
KY-307,CN31
7
+5V
8
+5V
5V
5
GND
10
GND
11
GND
12
GND
13
GND
14
GND
15
GND
R10
10
R11
10
R12
10
C11
C10
C12
*
* :NO MOUNT
5V
C2 47 16V
C1 0.1
IC1
MAX7219CNG
19
Vcc
13
CLK
12
LOAD
1
DIN
DOUT
24
R1
10k
18
ISET
SEG A
SEG B
SEG C
SEG D
SEG E
SEG F
SEG G
SEG DP
14
16
20
23
21
15
17
22
A
B
C
D
E
F
G
DP
DIG 0
DIG 1
DIG 2
DIG 3
DIG 4
DIG 5
DIG 6
DIG 7
2
11
6
7
3
10
5
8
0
1
2
3
4
5
6
7
GND
GND
4
9
D1
LD-701MG
D2
LD-701MG
D3
LD-701MG
ND1
GL8E03D
<+/->
ND2
GL8E03D
ND3
GL8E03D
ND4
GL8E03D
ND5
GL8E03D
ND6
GL8E03D
A 10
B 9
C 8
D 5
E 4
F 2
G 3
DP 7
COM
1
6

LED-178 BOARD
BOARD NO.1-650-034-11
BKDS-2010

FRAME
CN-980;CONNECTOR
VR-182;VOLUME


AC IN 100-220V
SW REG
MRW-150
1-413-769-11
-12V
+12V
GND
+5V
CN1
CN4
ROTARY ENCODER
PHASE A
PHASE B
CN41
CN5
LED7 OUT
LED6 OUT
LED5 OUT
ENABLE LED
SET UP LED
USER LED
ENABLE SCAN
SET UP SCAN
USER SCAN
SW7 IN
SW6 IN
SW5 IN
FLAT CABLE
KY-291
SETUP SWITCH BOARD
1-650-033-11
CN3
CN23
A1
A2
A3
A4
A5
A6
R/W
EX ABORT
EX RESET
ECLK
CN2
CN20
D0
D1
D2
D3
D4
D5
D6
D7
RESET
WR
RD
ESCS2
CN32
CN22
NC
CN21
F1 PHASE A
F1 PHASE B
F2 PHASE A
F2 PHASE B
F3 PHASE A
F3 PHASE B
F4 PHASE A
F4 PHASE B
F5 PHASE A
F5 PHASE B
F6 PHASE A
F6 PHASE B
CN25
V0
RS
E
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
CN24
LCD
KY-308
FUNCTION SWITCH BOARD
1-650-032-11
SWITCHER
RS422A
CN80
CN83
CN13
VD+
VD-
TX+
TX-
RX+
RX-
FB15
FB6
FB5
FB4
FB3
FB2
FB1
SPARE
CN81
CN84
CN14
RXD
TXD
FB16
FB14
FB13
FB12
FB11
FB10
RB9
FB8
FB7
TERMINAL
RS232C
CN82
RI
CTS
RTS
DSR
DTR
CD
CN-980
CONNECTOR BOARD
1-650-037-11


GND
F1 PHASE A
F1 PHASE B
F2 PHASE A
F2 PHASE B
F3 PHASE A
F3 PHASE B
F4 PHASE A
F4 PHASE B
F5 PHASE A
F5 PHASE B
F6 PHASE A
F6 PHASE B
GND
NC
F1 RV1
F2 RV2
F3 RV3
F4 RV4
F5 RV5
F6 RV6
COM
A
B
VR-182
VOLUME BOARD
1-650-035-11
GND
+5V
V0
RS
R/W
E
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
LCD
ROM/MEMORY PACK
MEM-60
1-650-143-11
CN26
ADDRESS 0 … ADDRESS 20
PACK WE
PACK OE
CS ROM PACK FIX
PACK DATA 0 … PACK DATA 7
PACK IO 0
PACK IO 1
PACK IO 2
+5V
GND
Vp
DEBUG CONECTOR (NO MOUNT)
CN15
STB
DATA1
DATA2
DATA3
DATA4
DATA5
DATA6
DATA7
DATA8
ACK
BUSY
PRIME
FAULT
GND
CN31
CN40
FLAT CABLE
7SEG SCLK
NC
7SEG OE
7SEG OUT
GND
+5V
LED-178
LED BOARD
1-650-034-11
CN7
CN52
DK0
DK1
DK2
DK3
DK4
DK5
DK6
DK7
R/W
RESET
WR IN
RD IN
EXCS1
CN6
CN51
ECLK
A1 IN
+12V
KY-307
SWITCH BOARD
1-650-031-11
KY-306
10KEY SWITCH BOARD
1-650-030-11

FRAME
BKDS-2010

SECTION 3
SEMICONDUCTOR PIN ASSIGNMENTS

ここに記載されているIC、ダイオードは、それぞれの機能を等価的に表したものです。したがって、互換性を表すものではありません。（互換性のない型名が併記されていることもあります。）部品の交換をするときは、SPARE PARTS の章を参照してください。
等価回路はICメーカーのData Bookに従いました。

ICs and diodes of which functions are equivalent are described here. Therefore, incompatible device names may be described together. For parts replacement, refer to the Spare Parts section in this manual.
The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

DIODE **PAGE**

AA1101W 3-1
AY1101W-88 3-1

GL8E03D 3-1

LD-701MG 3-1

RD? ?ESB? 3-1

VR1101W 3-1

IC **PAGE**

AN6701S 3-2

M27C1024-15F1 3-2
M66011FP 3-2
MAX7219CNG 3-3
MC14069UBF 3-3
MC34050M 3-3

SN74HC10ANS 3-3
SN751701P 3-3

TC4069UBF 3-3
TC74HC10AF 3-3
TC74VHC00FS 3-4
TC74VHC04FS 3-4

IC **PAGE**

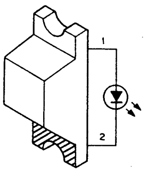
TC74VHC138FS 3-4
TC74VHC240FS 3-4
TC74VHC245FS 3-4
TC74VHC273FS 3-5
TC74VHC32FS 3-5
TC74VHC540FS 3-5
TC74VHC541FS 3-5
TC74VHC574FS 3-5
TD62083AP 3-5
TD62306F 3-8
TD62783AP 3-8
TMP68301AF-16 3-6
TMP82C79P-2 3-7

UPD4702G 3-8

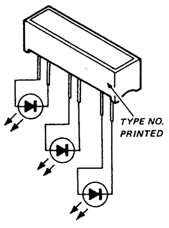
上記以外の半導体については、DVS-6000/6000C/2600/2600C/2100Cのインストレーションアンドメンテナンスマニュアル Part 2 をご覧ください。

Refer to DVS-6000/6000C/2600/2600C/2100C Installation and Maintenance Manual Part 2 for the semiconductors except for the above-mentioned diodes and ICs.

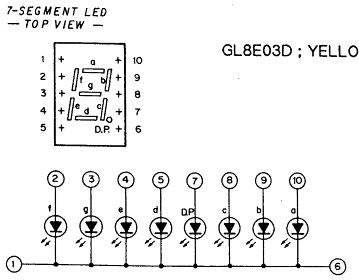
DIODE



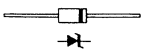
AA1101W ; ORANGE
AY1101W-88 ; YELLOW
VR1101W ; RED



LD-701MG ; GREEN



GL8E03D ; YELLOWISH GREEN

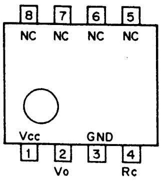


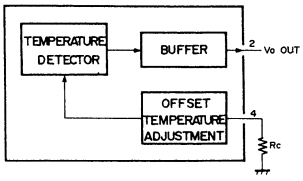
RD ? ?ESB ?

IC

AN6701S (MATSUSHITA) FLAT PACKAGE

TEMPERATURE SENSING
– TOP VIEW –

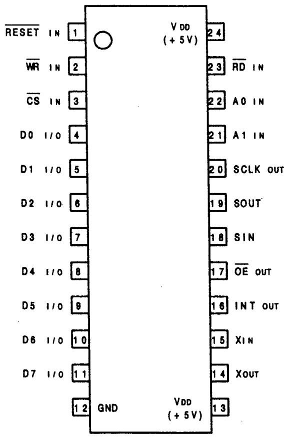

8
7
6
5
NC NC NC NC
Vcc
GND
1
2
3
4
Vo
Rc

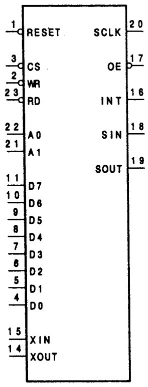

TEMPERATURE DETECTOR
BUFFER
2
Vo OUT
OFFSET TEMPERATURE ADJUSTMENT
4
Rc

Rc : RESISTOR FOR CALIBRATION

M66011FP (MITSUBISHI)

C-MOS SERIAL BUS CONTROLLER
– TOP VIEW –


RESET IN 1
WR IN 2
CS IN 3
D0 I/O 4
D1 I/O 5
D2 I/O 6
D3 I/O 7
D4 I/O 8
D5 I/O 9
D6 I/O 10
D7 I/O 11
12 GND
VDD (+5V) 24
23 RD IN
22 A0 IN
21 A1 IN
20 SCLK OUT
19 SOUT
18 SIN
17 OE OUT
16 INT OUT
15 XIN
14 XOUT
VDD (+5V) 13


1 RESET
3 CS
2 WR
23 RD
22 A0
21 A1
11 D7
10 D6
9 D5
8 D4
7 D3
6 D2
5 D1
4 D0
15 XIN
14 XOUT
SCLK 20
OE 17
INT 16
SIN 18
SOUT 19

INPUT

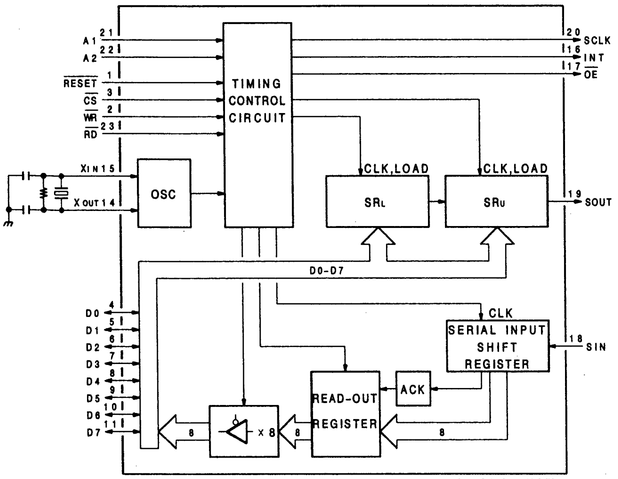
A0,A1 ;ADDRESS
$\overline{\text{CS}}$;CHIP SELECT
$\overline{\text{RD}}$;READ
SIN ;SERIAL DATA
$\overline{\text{RESET}}$;RESET
$\overline{\text{WR}}$;WRITE
XIN ;CLOCK

OUTPUT

INT ;INTERRUPT
$\overline{\text{OE}}$;OUTPUT ENABLE
SCLK ;SHIFT CLOCK
SOUT ;SERIAL DATA
XOUT ;CLOCK

INPUT/OUTPUT

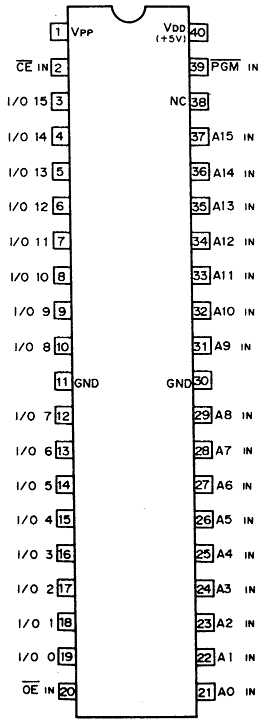
D0-D7 ;DATA BUS

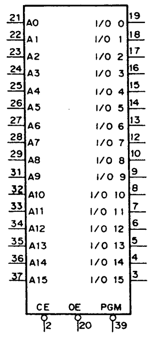

A1 21
A2 22
RESET 1
CS 3
WR 2
RD 23
TIMING CONTROL CIRCUIT
20 SCLK
16 INT
17 OE
XIN 15
XOUT 14
OSC
CLK,LOAD
SRL
CLK,LOAD
SRU
19 SOUT
D0-D7
CLK
SERIAL INPUT SHIFT REGISTER
18 SIN
D0 4
D1 5
D2 6
D3 7
D4 8
D5 9
D6 10
D7 11
ACK
READ-OUT REGISTER
×8
8
8
8

ACK;ACKNOWLEDGED

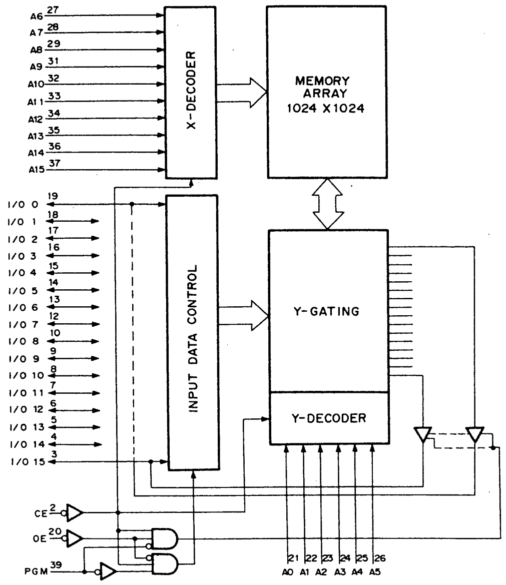
M27C1024-15F1 (SGS)

C-MOS 1M (65536x16)-BIT UV EPROM
– TOP VIEW –


1 VPP
CE IN 2
I/O 15 3
I/O 14 4
I/O 13 5
I/O 12 6
I/O 11 7
I/O 10 8
I/O 9 9
I/O 8 10
11 GND
I/O 7 12
I/O 6 13
I/O 5 14
I/O 4 15
I/O 3 16
I/O 2 17
I/O 1 18
I/O 0 19
OE IN 20
VDD (+5V) 40
39 PGM IN
NC 38
37 A15 IN
36 A14 IN
35 A13 IN
34 A12 IN
33 A11 IN
32 A10 IN
31 A9 IN
GND 30
29 A8 IN
28 A7 IN
27 A6 IN
26 A5 IN
25 A4 IN
24 A3 IN
23 A2 IN
22 A1 IN
21 A0 IN

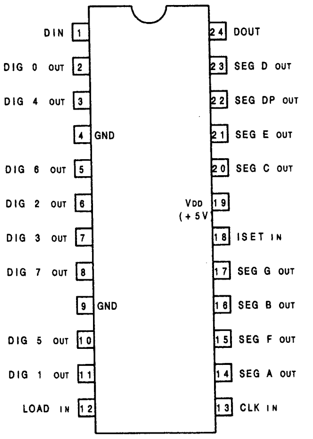

21 A0
22 A1
23 A2
24 A3
25 A4
26 A5
27 A6
28 A7
29 A8
31 A9
32 A10
33 A11
34 A12
35 A13
36 A14
37 A15
I/O 0 19
I/O 1 18
I/O 2 17
I/O 3 16
I/O 4 15
I/O 5 14
I/O 6 13
I/O 7 12
I/O 8 10
I/O 9 9
I/O 10 8
I/O 11 7
I/O 12 6
I/O 13 5
I/O 14 4
I/O 15 3
CE 2
OE 20
PGM 39

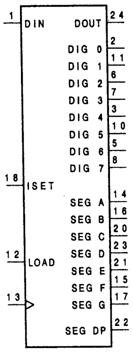
A0 – A15 : ADDRESS INPUTS
CE : CHIP ENABLE INPUT
I/O0 – I/O15 : DATA INPUTS/OUTPUTS
OE : OUTPUT ENABLE INPUT
PGM : PROGRAM ENABLE INPUT
V_{PP} : PROGRAM VOLTAGE INPUT
NORMAL : +5V, PROGRAM : +12.5V


A6 27
A7 28
A8 29
A9 31
A10 32
A11 33
A12 34
A13 35
A14 36
A15 37
X-DECODER
MEMORY ARRAY 1024 X1024
I/O 0 19
I/O 1 18
I/O 2 17
I/O 3 16
I/O 4 15
I/O 5 14
I/O 6 13
I/O 7 12
I/O 8 10
I/O 9 9
I/O 10 8
I/O 11 7
I/O 12 6
I/O 13 5
I/O 14 4
I/O 15 3
INPUT DATA CONTROL
Y-GATING
Y-DECODER
CE 2
OE 20
PGM 39
21 22 23 24 25 26
A0 A1 A2 A3 A4 A5

MAX7219CNG (MAXIM)

C-MOS 8-SEGMENT DISPLAY DRIVER WITH SERIAL INTERFACE
– TOP VIEW –


DIN 1
DIG 0 OUT 2
DIG 4 OUT 3
4 GND
DIG 6 OUT 5
DIG 2 OUT 6
DIG 3 OUT 7
DIG 7 OUT 8
9 GND
DIG 5 OUT 10
DIG 1 OUT 11
LOAD IN 12
24 DOUT
23 SEG D OUT
22 SEG DP OUT
21 SEG E OUT
20 SEG C OUT
VDD (+5V) 19
18 ISET IN
17 SEG G OUT
16 SEG B OUT
15 SEG F OUT
14 SEG A OUT
13 CLK IN


1 DIN
DOUT 24
DIG 0 2
DIG 1 11
DIG 2 6
DIG 3 7
DIG 4 3
DIG 5 10
DIG 6 5
DIG 7 8
18 ISET
SEG A 14
SEG B 16
SEG C 20
SEG D 23
SEG E 21
SEG F 15
SEG G 17
12 LOAD
13
SEG DP 22

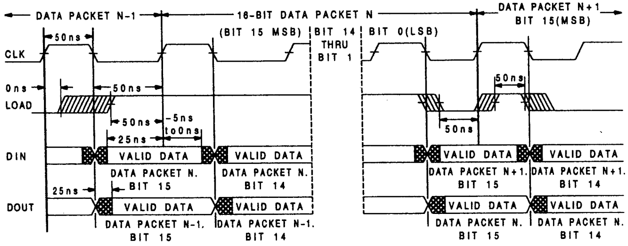
INPUT

CLK ;CLOCK INPUT
DIN ;SERIAL DATA INPUT
LOAD ;DATA INPUT LOAD
ISET ;SETTING OF PEAK SEG.CURRENT

OUTPUT

DOUT ;SERIAL DATA OUTPUT
DIG 0-7 ;DIGITAL DRIVE CURRENT SINK
SEG A-G ;SEGMENT DRIVE CURRENT SOURCE
SEG DP ;SEGMENT DRIVE DICIMAL POINT

TIMING CHART

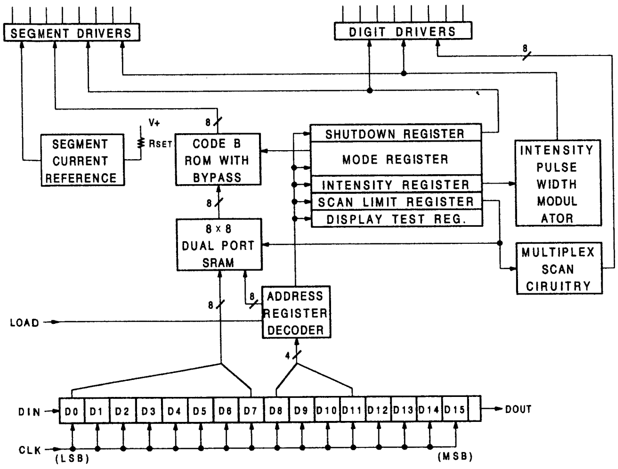

DATA PACKET N-1
16-BIT DATA PACKET N
DATA PACKET N+1 BIT 15(MSB)
(BIT 15 MSB)
BIT 14 THRU BIT 1
BIT 0(LSB)
CLK
50ns
0ns
LOAD
50ns
50ns
-5ns to0ns
25ns
50ns
50ns
DIN
VALID DATA
DATA PACKET N. BIT 15
VALID DATA
DATA PACKET N. BIT 14
VALID DATA
DATA PACKET N+1. BIT 15
VALID DATA
DATA PACKET N+1. BIT 14
25ns
DOUT
VALID DATA
DATA PACKET N-1. BIT 15
VALID DATA
DATA PACKET N-1. BIT 14
VALID DATA
DATA PACKET N. BIT 15
VALID DATA
DATA PACKET N. BIT 14

SERIAL DATA FORMAT(16BIT)

D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	D0
X	X	X	X	ADDRESS				MSB			DATA				LSB

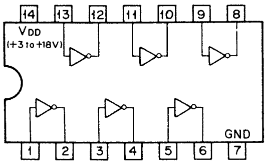
X = ' don' t care' bit

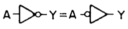
BLOCK DIAGRAM


SEGMENT DRIVERS
DIGIT DRIVERS
8
V+
RSET
8
SEGMENT CURRENT REFERENCE
CODE B ROM WITH BYPASS
SHUTDOWN REGISTER
MODE REGISTER
INTENSITY REGISTER
SCAN LIMIT REGISTER
DISPLAY TEST REG.
INTENSITY PULSE WIDTH MODUL ATOR
8
8 x 8 DUAL PORT SRAM
MULTIPLEX SCAN CIRUITRY
8
8
ADDRESS REGISTER DECODER
LOAD
4
DIN
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
DOUT
CLK
(LSB)
(MSB)

MC14069UBF (MOTOROLA)
TC4069UBF (TOSHIBA) FLAT PACKAGE

C-MOS INVERTER
– TOP VIEW –


14
13
12
11
10
9
8
VDD (+3 to +18V)
GND
1
2
3
4
5
6
7



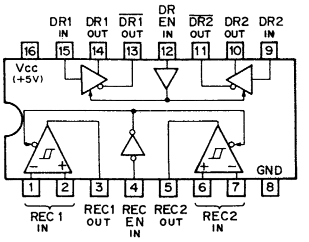
$Y = \overline{A}$

A	Y
0	1
1	0

0 ; LOW LEVEL
1 ; HIGH LEVEL

MC34050M (MOTOROLA) FLAT PACKAGE

RS-422 LINE DRIVER/RECEIVER
– TOP VIEW –


DR1 IN
DR1 OUT
$\overline{DR1}$ OUT
DR EN IN
$\overline{DR2}$ OUT
DR2 OUT
DR2 IN
16
15
14
13
12
11
10
9
Vcc (+5V)
GND
1
2
3
4
5
6
7
8
REC 1 IN
REC1 OUT
REC EN IN
REC2 OUT
REC2 IN

DRIVER

DR IN	EN	DR OUT	$\overline{DR}$ OUT
0	1	0	1
1	1	1	0
X	0	HI–Z	HI–Z

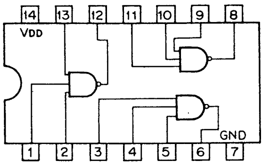
RECEIVER

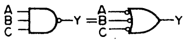
REC IN	EN	RECOUT
>+0.2V DIFF	0	1
<–0.2V DIFF	0	0
X	1	HI–Z

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE
HI–Z ; HIGH IMPEDANCE

SN74HC10ANS (TI) FLAT PACKAGE
TC74HC10AF (TOSHIBA) FLAT PACKAGE

C-MOS 3-INPUT NAND GATE
– TOP VIEW –


14
13
12
11
10
9
8
VDD
GND
1
2
3
4
5
6
7



$Y = \overline{ABC} = \overline{A} + \overline{B} + \overline{C}$

A	B	C	Y
0	0	0	1
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	0

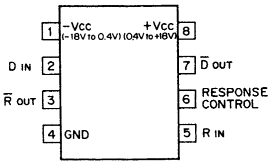
0 ; LOW LEVEL
1 ; HIGH LEVEL

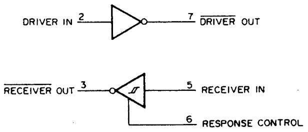
NOTE :

TYPE	VDD
TC40H	+ 2 to + 8V
OTHERS	+ 2 to + 6V

SN751701P (TI)

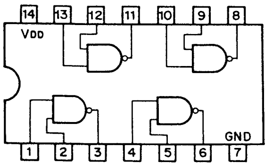
BUS DRIVER/RECEIVER
– TOP VIEW –


1
–Vcc (–18V to 0.4V)
+Vcc (0.4V to +18V)
8
D IN 2
7 $\overline{D}$ OUT
$\overline{R}$ OUT 3
6 RESPONSE CONTROL
4 GND
5 R IN

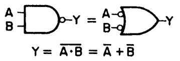

DRIVER IN 2
7 $\overline{DRIVER}$ OUT
$\overline{RECEIVER}$ OUT 3
5 RECEIVER IN
6 RESPONSE CONTROL

TC74VHC00FS (TOSHIBA) FLAT PACKAGE (SMALL)

C-MOS QUAD 2-INPUT NAND GATES
- TOP VIEW -



14 13 12 11 10 9 8
VDD
GND
1 2 3 4 5 6 7



$Y = \overline{A \cdot B} = \overline{A} + \overline{B}$

A	B	Y
0	0	1
0	1	1
1	0	1
1	1	0

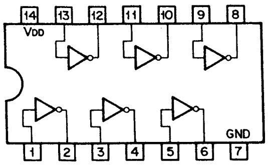
0 ; LOW LEVEL
1 ; HIGH LEVEL

NOTE :

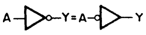
TYPE	VDD
TC74AC00 TYPE TC74VHC00	+2 to +5.5V
MC74HCT00N	+5V
74ACT00 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

TC74VHC04FS (TOSHIBA) FLAT PACKAGE (SMALL)

C-MOS HEX INVERTERS
- TOP VIEW -



14 13 12 11 10 9 8
VDD
GND
1 2 3 4 5 6 7



$Y = \overline{A}$

A	Y
0	1
1	0

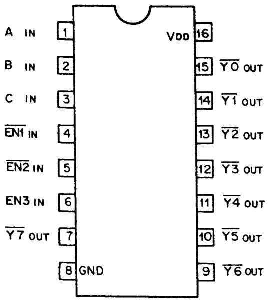
0 ; LOW LEVEL
1 ; HIGH LEVEL

NOTE :

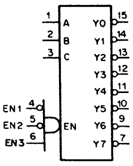
TYPE	VDD
74HCT04 TYPE	+ 5V
TC74AC04 TYPE TC74VHC04 TYPE	+ 2 to + 5.5V
74ACT04 TYPE	+ 4.5 to + 5.5V
OTHER TYPES	+ 2 to + 6V

TC74VHC138FS (TOSHIBA) FLAT PACKAGE (SMALL)

C-MOS 3-TO-8 LINE DECODER/DEMULTIPLEXER
- TOP VIEW -



A IN 1
B IN 2
C IN 3
EN1 IN 4
EN2 IN 5
EN3 IN 6
Y7 OUT 7
8 GND
VDD 16
15 Y0 OUT
14 Y1 OUT
13 Y2 OUT
12 Y3 OUT
11 Y4 OUT
10 Y5 OUT
9 Y6 OUT



1 A
2 B
3 C
EN1 4
EN2 5
EN3 6
EN
Y0 15
Y1 14
Y2 13
Y3 12
Y4 11
Y5 10
Y6 9
Y7 7

INPUTS				OUTPUTS							
EN	C	B	A	Y7	Y6	Y5	Y4	Y3	Y2	Y1	Y0
0	X	X	X	1	1	1	1	1	1	1	1
1	0	0	0	1	1	1	1	1	1	1	0
1	0	0	1	1	1	1	1	1	1	0	1
1	0	1	0	1	1	1	1	1	0	1	1
1	0	1	1	1	1	1	1	0	1	1	1
1	1	0	0	1	1	1	0	1	1	1	1
1	1	0	1	1	1	0	1	1	1	1	1
1	1	1	0	1	0	1	1	1	1	1	1
1	1	1	1	0	1	1	1	1	1	1	1

$EN = \overline{EN1} \cdot \overline{EN2} \cdot EN3$

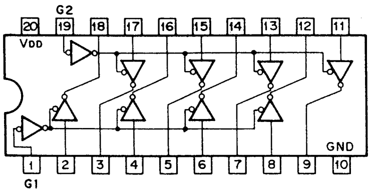
0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE

NOTE :

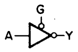
TYPE	VDD
74HCT138 TYPE	+5V
74ACT138 TYPE	+4.5 to +5.5V
TC74AC138 TYPE TC74VHC138	+2 to +5.5V
OTHER TYPES	+2 to +6V

TC74VHC240FS (TOSHIBA) FLAT PACKAGE (SMALL)

C-MOS 3-STATE INVERTER/LINE DRIVER
- TOP VIEW -

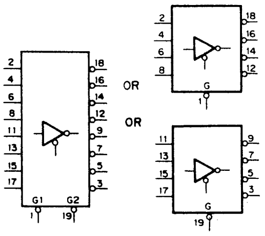


G2
20 19 18 17 16 15 14 13 12 11
VDD
GND
1 2 3 4 5 6 7 8 9 10
G1



G	A	Y
0	0	1
0	1	0
1	X	HI-Z

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE
HI-Z ; HIGH IMPEDANCE



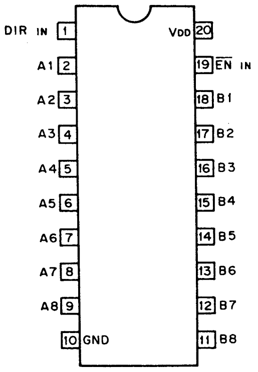
2 4 6 8 11 13 15 17
18 16 14 12 9 7 5 3
G1 G2
1 19
OR
OR
2 4 6 8
18 16 14 12
G
1
11 13 15 17
9 7 5 3
G
19

NOTE :

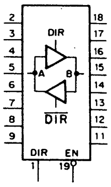
TYPE	VDD
74AC/74HC	+2 to +6V
74ACT/74HCT TC74BC240F TC74BC240P	+5V
TC74AC240F TC74AC240P TC74VHC240	+2 to +5.5V

TC74VHC245FS (TOSHIBA) FLAT PACKAGE (SMALL)

C-MOS BILATERAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS
- TOP VIEW -



DIR IN 1
A1 2
A2 3
A3 4
A4 5
A5 6
A6 7
A7 8
A8 9
10 GND
VDD 20
19 EN IN
18 B1
17 B2
16 B3
15 B4
14 B5
13 B6
12 B7
11 B8



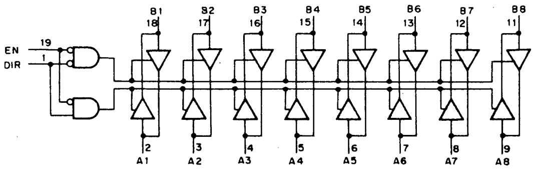
2 3 4 5 6 7 8 9
18 17 16 15 14 13 12 11
DIR
A
B
DIR
DIR EN
1 19

EN	DIR	OPERATION
0	0	B to A
0	1	A to B
1	X	HI-Z

0 ; LOW LEVEL
1 ; HIGH LEVEL
X; DON'T CARE
HI-Z ; HIGH IMPEDANCE

NOTE :

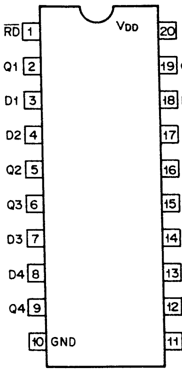
TYPE	VDD
AC HC	+2 to +6V
ACT BCT HCT	+5V
TC74AC245F TC74AC245P TC74VHC245	+2 to +5.5V
74LVT	+2.7 to +3.6V

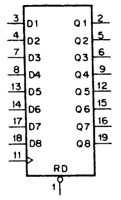


B1 B2 B3 B4 B5 B6 B7 B8
18 17 16 15 14 13 12 11
EN 19
DIR 1
2 3 4 5 6 7 8 9
A1 A2 A3 A4 A5 A6 A7 A8

TC74VHC273FS (TOSHIBA) FLAT PACKAGE (SMALL)

C-MOS OCTAL D-TYPE FLIP-FLOPS WITH RESET
- TOP VIEW -

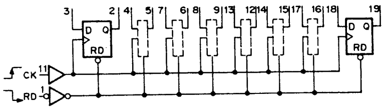

RD 1
Q1 2
D1 3
D2 4
Q2 5
Q3 6
D3 7
D4 8
Q4 9
10 GND
VDD 20
19 Q8
18 D8
17 D7
16 Q7
15 Q6
14 D6
13 D5
12 Q5
11 CK


D1 Q1
D2 Q2
D3 Q3
D4 Q4
D5 Q5
D6 Q6
D7 Q7
D8 Q8
RD

EACH FLIP-FLOP

INPUT			OUT
RD	CK	D	Q
0	X	X	0
1	↑	0	0
1	↑	1	1
1	0	X	Qo

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE
Qo : NO CHANGE

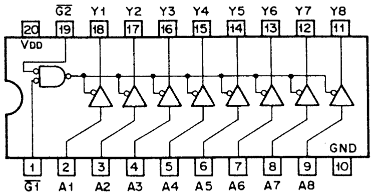


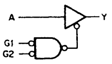
NOTE :

TYPE	VDD
AC HC	+2 to +6V
VHC	+2 to +5.5V

TC74VHC541FS (TOSHIBA) FLAT PACKAGE (SMALL)

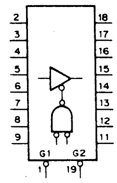
C-MOS BUFFERS AND LINE DRIVERS WITH 3-STATE OUTPUTS
- TOP VIEW -


G2 Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8
VDD
GND
G1 A1 A2 A3 A4 A5 A6 A7 A8



G1	G2	A	Y
0	0	0	0
0	0	1	1
1	X	X	HI-Z
X	1	X	HI-Z

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE
HI-Z ; HIGH IMPEDANCE

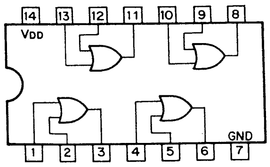


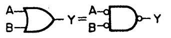
NOTE :

TYPE	VDD
AC/VHC	+2 to +5.5V
HC	+2 to +6V
ACT/BCT/HCT	+5V

TC74VHC32FS (TOSHIBA) FLAT PACKAGE (SMALL)

C-MOS QUAD 2-INPUT OR GATES
- TOP VIEW -





$Y = A + B = \overline{\overline{A} \cdot \overline{B}}$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

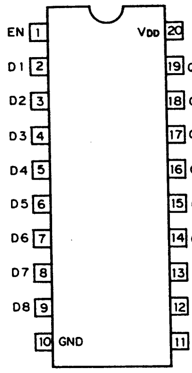
0 ; LOW LEVEL
1 ; HIGH LEVEL

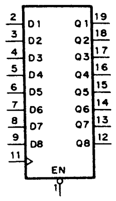
NOTE :

TYPE	VDD
TC74AC32 TYPE TC74VHC32	+2 to +5.5V
OTHER TYPES	+2 to +6V

TC74VHC574FS (TOSHIBA) FLAT PACKAGE (SMALL)

C-MOS 3-STATE D-TYPE EDGE-TRIGGERED FLIP-FLOP
- TOP VIEW -

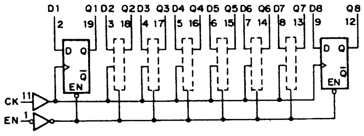

EN 1
D1 2
D2 3
D3 4
D4 5
D5 6
D6 7
D7 8
D8 9
10 GND
VDD 20
19 Q1
18 Q2
17 Q3
16 Q4
15 Q5
14 Q6
13 Q7
12 Q8
11 CK


D1 Q1
D2 Q2
D3 Q3
D4 Q4
D5 Q5
D6 Q6
D7 Q7
D8 Q8
EN

EACH FLIP-FLOP

INPUTS			OUT
EN	CK	D	Q
0	↑	1	1
0	↑	0	0
0	↓	X	Qo
1	X	X	HI-Z

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE
HI-Z ; HIGH IMPEDANCE
Qo ; NO CHANGE

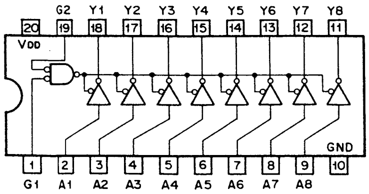

D1 Q1 D2 Q2 D3 Q3 D4 Q4 D5 Q5 D6 Q6 D7 Q7 D8 Q8
D Q
EN
CK
EN

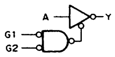
NOTE :

TYPE	VDD
74AC/74HC	+2 to +6V
74ACT/74FCT /74HCT	+5V
TC74AC574F TC74VHC574	+2 to +5.5V

TC74VHC540FS (TOSHIBA) FLAT PACKAGE (SMALL)

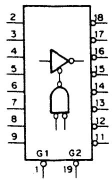
C-MOS 3-STATE INVERTING BUFFER/LINE DRIVER/LINE RECEIVER
- TOP VIEW -


G2 Y1 Y2 Y3 Y4 Y5 Y6 Y7 Y8
VDD
GND
G1 A1 A2 A3 A4 A5 A6 A7 A8



G1	G2	A	Y
0	0	0	1
0	0	1	0
1	X	X	HI-Z
X	1	X	HI-Z

0 ; LOW LEVEL
1 ; HIGH LEVEL
X ; DON'T CARE
HI-Z ; HIGH IMPEDANCE

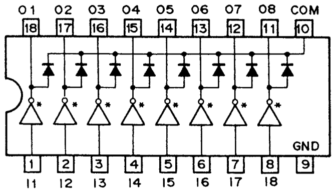


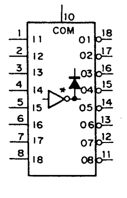
NOTE :

TYPE	VDD
ACT/HCT	+5V
TC74AC540 TYPE TC74VHC540	+2 to +5.5V
OTHER TYPES	+2 to +6V

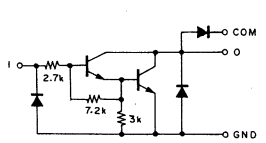
TD62083AP (TOSHIBA)

DARLINGTON DRIVER
- TOP VIEW -

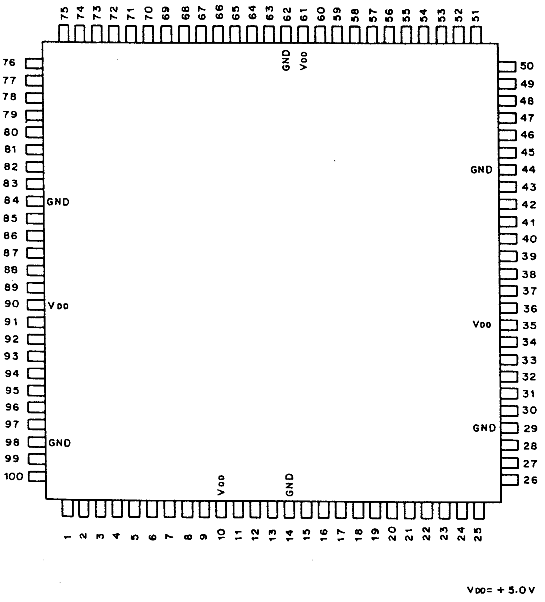

O1 O2 O3 O4 O5 O6 O7 O8 COM
GND
I1 I2 I3 I4 I5 I6 I7 I8

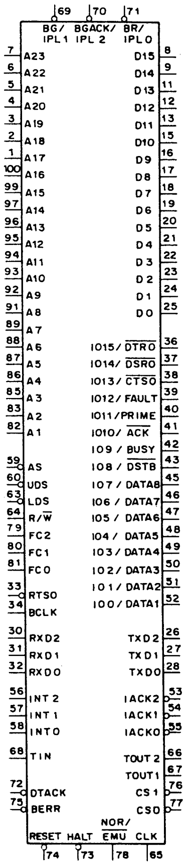

COM
I1 O1
I2 O2
I3 O3
I4 O4
I5 O5
I6 O6
I7 O7
I8 O8

* ; OPEN COLLECTOR

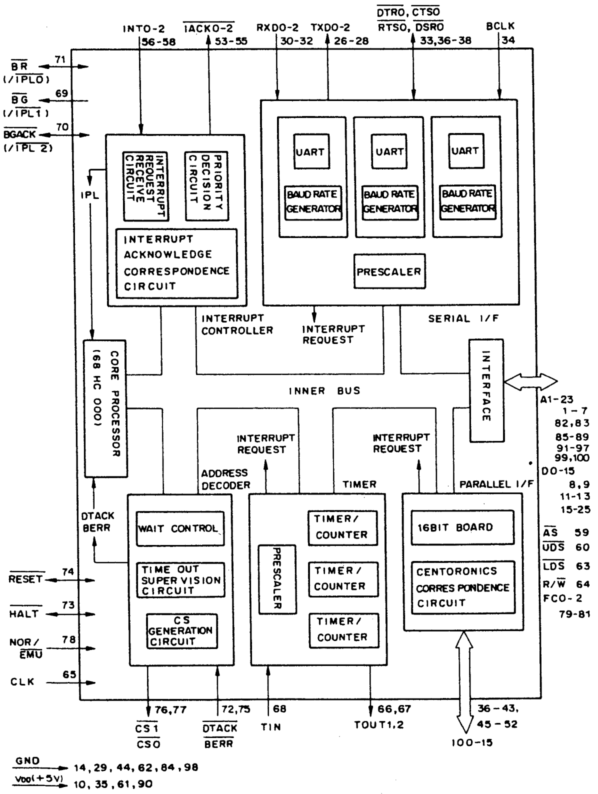

COM
O
I
2.7k
7.2k
3k
GND

TMP68301AF-16 (TOSHIBA) FLAT PACKAGE
C-MOS 16-BIT MICRO PROCESSOR
– TOP VIEW –


GND
VDD
GND
VDD
GND
GND
VDD
VDD
GND
VDD= +5.0V


BG/IPL1
BGACK/IPL2
BR/IPL0
A23
A22
A21
A20
A19
A18
A17
A16
A15
A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
AS
UDS
LDS
R/W
FC2
FC1
FC0
RTSO
BCLK
RXD2
RXD1
RXD0
INT2
INT1
INT0
TIN
DTACK
BERR
D15
D14
D13
D12
D11
D10
D9
D8
D7
D6
D5
D4
D3
D2
D1
D0
IO15/DTRO
IO14/DSRO
IO13/CTSO
IO12/FAULT
IO11/PRIME
IO10/ACK
IO9/BUSY
IO8/DSTB
IO7/DATA8
IO6/DATA7
IO5/DATA6
IO4/DATA5
IO3/DATA4
IO2/DATA3
IO1/DATA2
IO0/DATA1
TXD2
TXD1
TXD0
IACK2
IACK1
IACK0
TOUT2
TOUT1
CS1
CS0
RESET
HALT
NOR/EMU
CLK

INPUT	
BCLK	; BAUD RATE CLOCK
BERR	; BUS ERROR
CLK	; CLOCK
DTACK	; DATA TRANSFER ACKNOWLEDGE
INT0-2	; INTERRUPT REQUESTS
NOR/EMU	; MODE SELECT
RXD0-2	; RECEIVE DATA
TIN	; TIMER INPUT
OUTPUT	
BG (/IPL1)	; BUS GROUND
CS0, 1	; CHIP SELECTS
IACK0-2	; INTERRUPT ACKNOWLEDGE
TOUT1, 2	; TIMER OUTPUTS
TXD0-2	; TRANSFER DATA
INPUT/OUTPUT	
A1-23	; ADDRESS BUS
ACK	; I/O PORT
AS	; ADDRESS STROBE
BGACK (/IPL2)	; BUS GROUND ACKNOWLEDGE
BR (/IPLO)	; BUS REQUEST
BUSY	; I/O PORT
CTSO, DSRO, DTRO, DSTB	; I/O PORTS
D0-15	; DATA BUS
DATA1-8	; I/O PORTS
FAULT	; I/O PORT
FC0-2	; FUNCTION CORDS
HALT	; HALT
IO0-15	; I/O PORT
LDS	; LOWER DATA STROBE
PRIME	; I/O PORT
RESET	; RESET
RTSO	; TRANSFER REQUEST
R/W	; READ/WRITE
UDS	; UPPER DATA STROBE

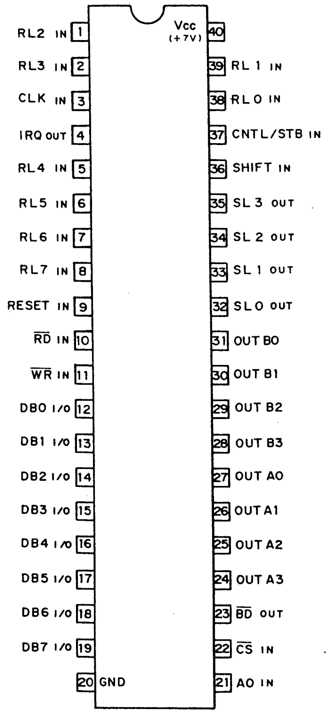

INT0-2
56-58
IACK0-2
53-55
RXD0-2
30-32
TXD0-2
26-28
DTRO, CTSO
RTSO, DSRO
33,36-38
BCLK
34
BR (/IPL0) 71
BG (/IPL1) 69
BGACK (/IPL2) 70
IPL
INTERRUPT REQUEST RECEIVE CIRCUIT
PRIORITY DECISION CIRCUIT
INTERRUPT ACKNOWLEDGE CORRESPONDENCE CIRCUIT
INTERRUPT CONTROLLER
INTERRUPT REQUEST
UART
BAUD RATE GENERATOR
UART
BAUD RATE GENERATOR
UART
BAUD RATE GENERATOR
PRESCALER
SERIAL I/F
CORE PROCESSOR (68 HC 000)
INNER BUS
INTERFACE
A1-23
1-7
82,83
85-89
91-97
99,100
D0-15
8,9
11-13
15-25
INTERRUPT REQUEST
INTERRUPT REQUEST
ADDRESS DECODER
TIMER
PARALLEL I/F
DTACK
BERR
WAIT CONTROL
TIME OUT SUPER VISION CIRCUIT
CS GENERATION CIRCUIT
PRESCALER
TIMER/COUNTER
TIMER/COUNTER
TIMER/COUNTER
16BIT BOARD
CENTORONICS CORRES PONDENCE CIRCUIT
AS 59
UDS 60
LDS 63
R/W 64
FC0-2
79-81
RESET 74
HALT 73
NOR/EMU 78
CLK 65
76,77
CS1
CS0
72,75
DTACK
BERR
68
TIN
66,67
TOUT1,2
36-43,
45-52
100-15
GND → 14,29,44,62,84,98
VDD(+5V) → 10,35,61,90

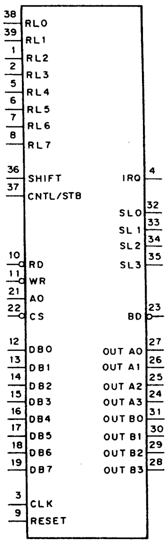
(VDD = +5.0 V)

PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL	PIN NO.	I/O	SIGNAL
1	I/O	A17	26	O	TXD2	51	I/O	IO1/DATA2	76	O	CS1
2	I/O	A18	27	O	TXD1	52	I/O	IO0/DATA1	77	O	CS0
3	I/O	A19	28	O	TXD0	53	O	IACK2	78	I	NOR/EMU
4	I/O	A20	29	—	GND	54	O	IACK1	79	I/O	FC2
5	I/O	A21	30	I	RXD2	55	O	IACK0	80	I/O	FC1
6	I/O	A22	31	I	RXD1	56	I	INT2	81	I/O	FC0
7	I/O	A23	32	I	RXD0	57	I	INT1	82	I/O	A1
8	I/O	D15	33	I/O	RTSO	58	I	INT0	83	I/O	A2
9	I/O	D14	34	I	BCLK	59	I/O	AS	84	—	GND
10	—	VDD (+5.0 V)	35	—	VDD (+5.0 V)	60	I/O	UDS	85	I/O	A3
11	I/O	D13	36	I/O	IO15/DTRO	61	—	VDD (+5.0 V)	86	I/O	A4
12	I/O	D12	37	I/O	IO14/DSRO	62	—	GND	87	I/O	A5
13	I/O	D11	38	I/O	IO13/CTSO	63	I/O	LDS	88	I/O	A6
14	—	GND	39	I/O	IO12/FAULT	64	I/O	R/W	89	I/O	A7
15	I/O	D10	40	I/O	IO11/PRIME	65	I	CLK	90	—	VDD (+5.0 V)
16	I/O	D9	41	I/O	IO10/ACK	66	O	TOUT2	91	I/O	A8
17	I/O	D8	42	I/O	IO9/BUSY	67	O	TOUT1	92	I/O	A9
18	I/O	D7	43	I/O	IO8/DSTB	68	I	TIN	93	I/O	A10
19	I/O	D6	44	—	GND	69	O	BG/IPL1	94	I/O	A11
20	I/O	D5	45	I/O	IO7/DATA8	70	I/O	BGACK/IPL2	95	I/O	A12
21	I/O	D4	46	I/O	IO6/DATA7	71	I/O	BR/IPL0	96	I/O	A13
22	I/O	D3	47	I/O	IO5/DATA6	72	I	DTACK	97	I/O	A14
23	I/O	D2	48	I/O	IO4/DATA5	73	I/O	HALT	98	—	GND
24	I/O	D1	49	I/O	IO3/DATA4	74	I/O	RESET	99	I/O	A15
25	I/O	D0	50	I/O	IO2/DATA3	75	I	BERR	100	I/O	A16

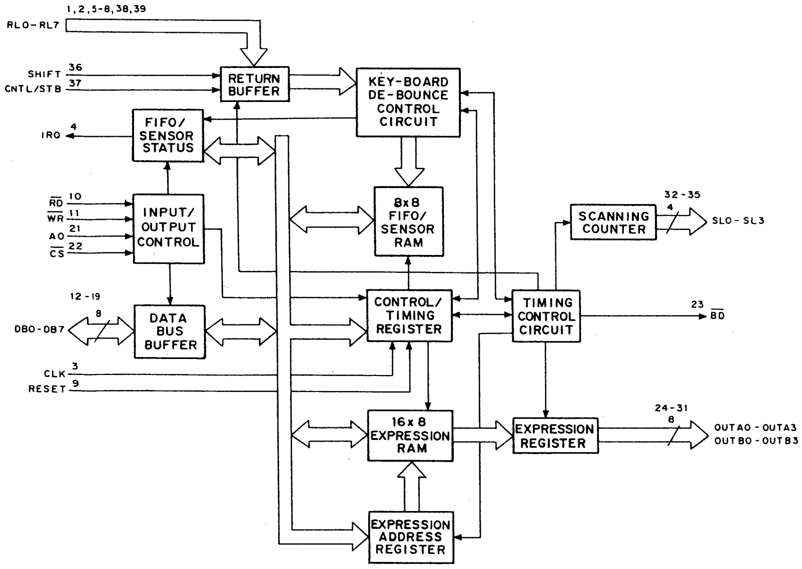
TMP82C79P-2 (TOSHIBA)

C-MOS PROGRAMABLE KEY-BOARD/DISPLAY INTERFACE DEVICE
– TOP VIEW –

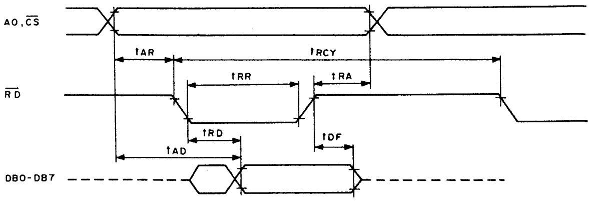

RL2 IN 1
RL3 IN 2
CLK IN 3
IRQ OUT 4
RL4 IN 5
RL5 IN 6
RL6 IN 7
RL7 IN 8
RESET IN 9
RD IN 10
WR IN 11
DB0 I/O 12
DB1 I/O 13
DB2 I/O 14
DB3 I/O 15
DB4 I/O 16
DB5 I/O 17
DB6 I/O 18
DB7 I/O 19
20 GND
40 Vcc (+7V)
39 RL 1 IN
38 RL 0 IN
37 CNTL/STB IN
36 SHIFT IN
35 SL 3 OUT
34 SL 2 OUT
33 SL 1 OUT
32 SL 0 OUT
31 OUT B0
30 OUT B1
29 OUT B2
28 OUT B3
27 OUT A0
26 OUT A1
25 OUT A2
24 OUT A3
23 BD OUT
22 CS IN
21 A0 IN


38 RL0
39 RL1
1 RL2
2 RL3
5 RL4
6 RL5
7 RL6
8 RL7
36 SHIFT
37 CNTL/STB
10 RD
11 WR
21 A0
22 CS
12 DB0
13 DB1
14 DB2
15 DB3
16 DB4
17 DB5
18 DB6
19 DB7
3 CLK
9 RESET
IRQ 4
SL0 32
SL1 33
SL2 34
SL3 35
BD 23
OUT A0 27
OUT A1 26
OUT A2 25
OUT A3 24
OUT B0 31
OUT B1 30
OUT B2 29
OUT B3 28

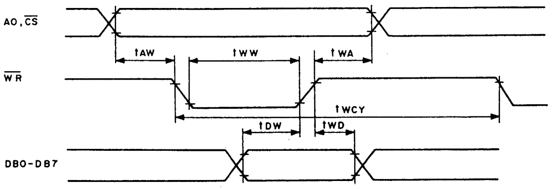
A0 ; COMMAND/DATA CONTROL INPUT
BD ; DISPLAY BLANKING OUTPUT
CLK ; CLOCK INPUT
CNTL/STB ; CONTROL/STROBE INPUT
CS ; CHIP SELECT INPUT
DB0-DB7 ; DATA BUS INPUT/OUTPUT
IRQ ; INTERRUPT REQUEST OUTPUT
OUT A0-A3
OUT B0-B3 ; 16x4 BIT EXPRESSION REFRESH REGISTER
RD ; READ STROBE INPUT
RESET ; RESET INPUT
RL0-RL7 ; RETURN LINE INPUT
SHIFT ; SHIFT INPUT
SL0-SL3 ; SCANNING LINE OUTPUT
WR ; WRITE STROBE INPUT


1,2,5-8,38,39
RL0-RL7
SHIFT 36
CNTL/STB 37
RETURN BUFFER
KEY-BOARD DE-BOUNCE CONTROL CIRCUIT
IRQ 4
FIFO/ SENSOR STATUS
RD 10
WR 11
A0 21
CS 22
INPUT/ OUTPUT CONTROL
8x8 FIFO/ SENSOR RAM
SCANNING COUNTER
32-35
4
SL0 - SL3
12-19
8
DB0-DB7
DATA BUS BUFFER
CONTROL/ TIMING REGISTER
TIMING CONTROL CIRCUIT
23
BD
CLK 3
RESET 9
16x8 EXPRESSION RAM
EXPRESSION REGISTER
24-31
8
OUTA0 - OUTA3
OUTB0 - OUTB3
EXPRESSION ADDRESS REGISTER

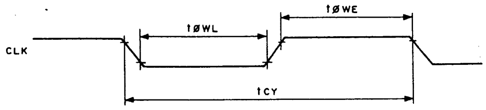
READ


A0,CS
tAR
tRCY
tRR
tRA
RD
tRD
tDF
tAD
DB0-DB7

WRITE

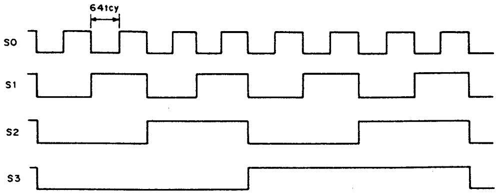

A0,CS
tAW
tWW
tWA
WR
tWCY
tDW
tWD
DB0-DB7

CLOCK

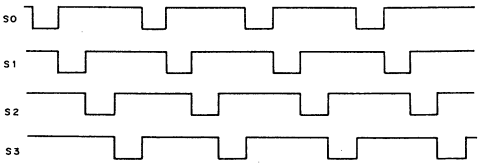

tØWE
tØWL
CLK
tCY

SCANNING

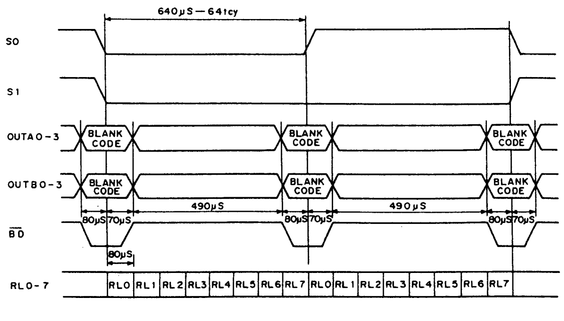
ENCODE


64tcy
S0
S1
S2
S3

DECODE

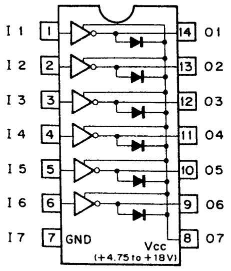


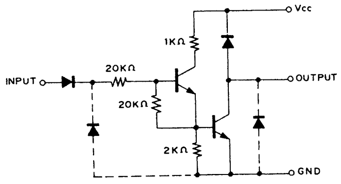
EXPRESSION


640μS—64tcy
S0
S1
OUTA0-3
BLANK CODE
OUTB0-3
BLANK CODE
490μS
80μS
70μS
BD
80μS
RL0-7
RL0
RL1
RL2
RL3
RL4
RL5
RL6
RL7

TD62306F (TOSHIBA) FLAT PACKAGE

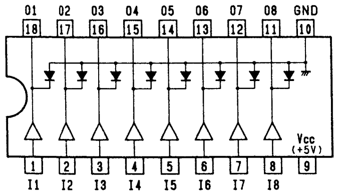
LOW SATURATION DRIVER
– TOP VIEW –

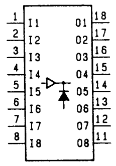

I 1
I 2
I 3
I 4
I 5
I 6
I 7
1
2
3
4
5
6
7
GND
14 O1
13 O2
12 O3
11 O4
10 O5
9 O6
8 O7
Vcc
(+4.75 to +18V)


Vcc
INPUT
20KΩ
20KΩ
1KΩ
2KΩ
OUTPUT
GND

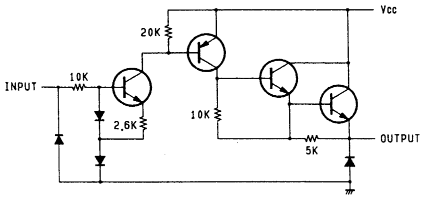
TD62783AP (TOSHIBA)

OCTAL DRIVER
– TOP VIEW –


O1 O2 O3 O4 O5 O6 O7 O8 GND
18 17 16 15 14 13 12 11 10
1 2 3 4 5 6 7 8 9
I1 I2 I3 I4 I5 I6 I7 I8
Vcc
(+5V)

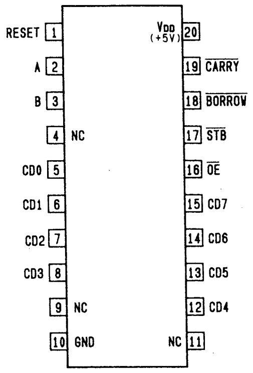

1 I1 O1 18
2 I2 O2 17
3 I3 O3 16
4 I4 O4 15
5 I5 O5 14
6 I6 O6 13
7 I7 O7 12
8 I8 O8 11

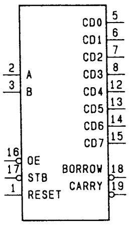
O1–O8 ;OUTPUTS
I1–I8 ;INPUTS


Vcc
20K
INPUT
10K
2.6K
10K
5K
OUTPUT

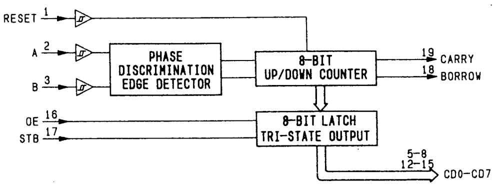
UPD4702G (NEC)

C-MOS INCREMENTAL ENCODER 8BIT UP DOWN COUNTER
– TOP VIEW –


RESET 1
A 2
B 3
4 NC
CD0 5
CD1 6
CD2 7
CD3 8
9 NC
10 GND
VDD (+5V) 20
19 $\overline{CARRY}$
18 $\overline{BORROW}$
17 $\overline{STB}$
16 $\overline{OE}$
15 CD7
14 CD6
13 CD5
12 CD4
NC 11


2 A
3 B
16 OE
17 STB
1 RESET
CD0 5
CD1 6
CD2 7
CD3 8
CD4 12
CD5 13
CD6 14
CD7 15
BORROW 18
CARRY 19

A ;INCREMENTAL SIGNAL (PHASE A) INPUT
B ;INCREMENTAL SIGNAL (PHASE B) INPUT
BORROW ;BORROW PULSE OUTPUT
CARRY ;CARRY PULSE OUTPUT
CD0–7 ;COUNT DATA OUTPUT
$\overline{OE}$;OUTPUT CONTROL SIGNAL INPUT
$\overline{RESET}$;COUNTER RESET INPUT
$\overline{STB}$;LATCH STROBE SIGNAL INPUT


RESET 1
A 2
B 3
PHASE DISCRIMINATION EDGE DETECTOR
8-BIT UP/DOWN COUNTER
19 CARRY
18 BORROW
OE 16
STB 17
8-BIT LATCH TRI-STATE OUTPUT
5–8
12–15
CD0–CD7

SECTION 4
SPARE PARTS

4-1. NOTES ON SPARE PARTS

(1) Safety Related Components Warning

> Components marked with ⚠ on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation.
> Replace these components with Sony parts whose part numbers appear in this manual or in service bulletins and service manual supplements published by Sony.

(2) Standardization of Parts

Repair parts supplied from Sony Parts Center may not be always identical with the parts which actually in use due to “accommodating the improved parts and/or engineering changes” or “standarzation of genuine parts”.
This manual’s exploded views and electrical spare parts list are indicating the part numbers of “the standardized genuine parts at present”.

(3) Stock of Parts

Parts marked with “o” SP (Supply Code) column of the spare parts list are not normally required for routine service work. Orders for parts marked with “o” will be processed, but allow for additional delivery time.

(4) Units for Capacitors, Inductors and Resistors

The following units are assumed in schematic diagrams, electrical parts list and exploded views unless otherwise specified.

Capacitors : μF
Inductors : μH
Resistors : Ω

補修用部品注意事項

(1) 安全重要部品

> 回路図、分解図、電気部品表中、 ⚠ 印の部品は安全性を維持するために重要な部品です。
> 従ってこれらの部品を交換するときには必ず指定の部品と交換して下さい。

(2) 部品の共通化

ソニーから供給される部品セットに実装されているものと異なることがあります。これは部品の共通化、改良等によるものです。
分解図や電気部品表には現時点での共通化された部品が記載されています。

(3) 部品の在庫

部品表のSP (Supply code) 欄に o で示される部品は交換頻度が低い部品ですので在庫していないことがあり、納期が長くなることがあります。

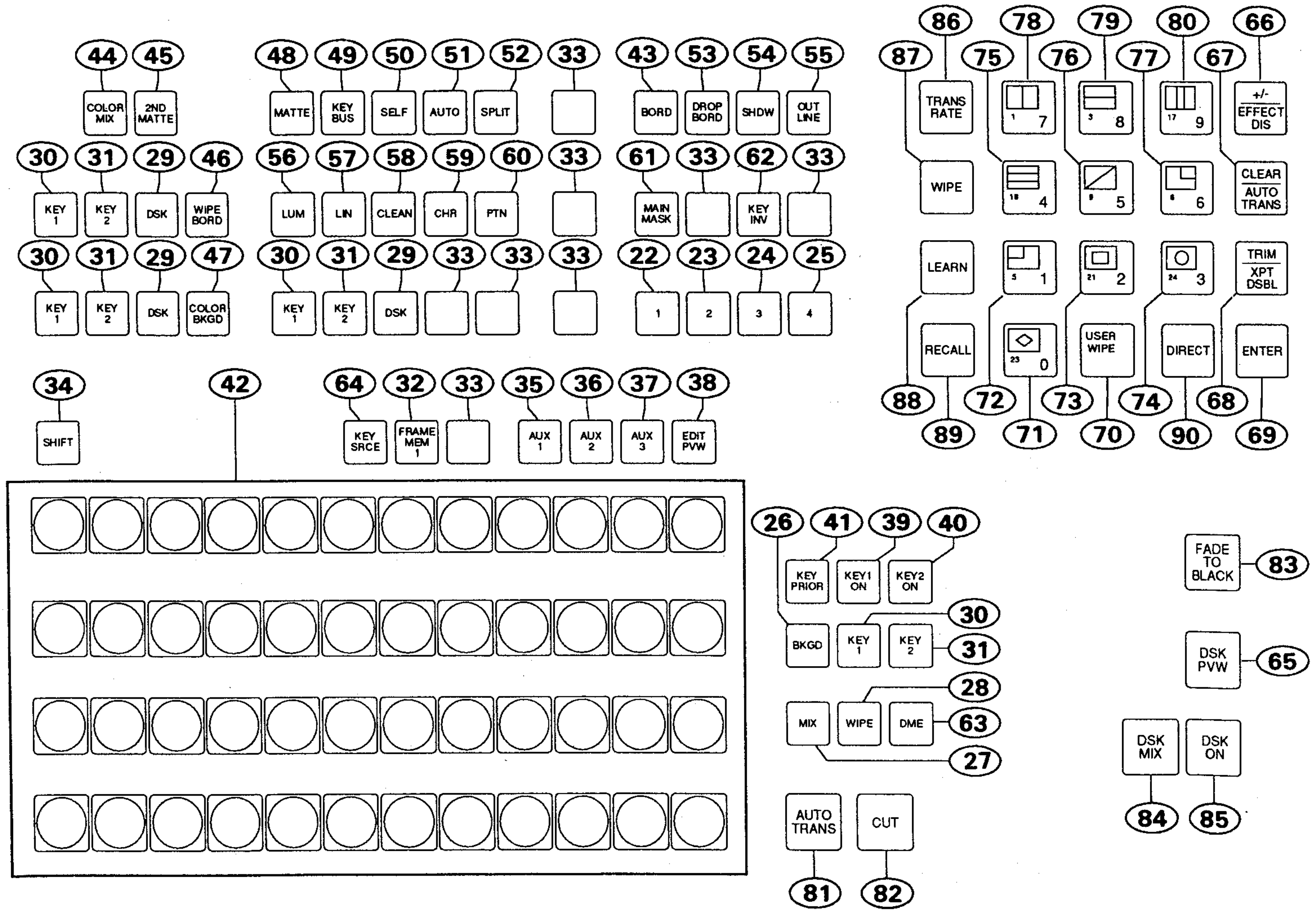
(4) コンデンサー、インダクター、抵抗の単位

回路図、分解図、電気部品表中、特に明記したものを除き、下記の単位は省略されています。

コンデンサー : μF
インダクター : μH
抵抗 : Ω

4-2. BKDS-2010
EXPLODED VIEWS AND PARTS

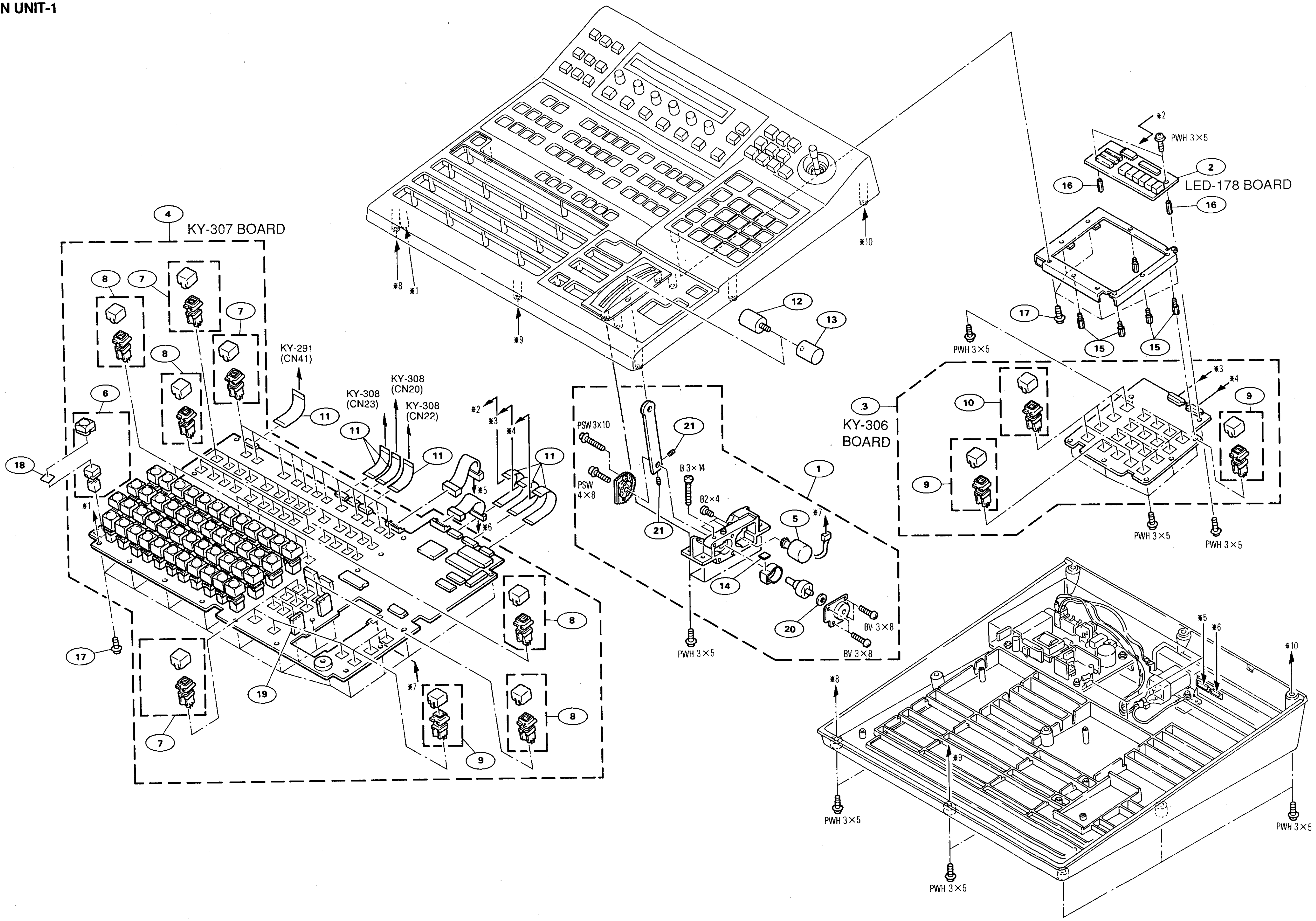
LOCATIONS OF KEY TOP
KY-306 BOARD
KY-307 BOARD


44 45 48 49 50 51 52 33 43 53 54 55
COLOR MIX
2ND MATTE
MATTE
KEY BUS
SELF
AUTO
SPLIT
BORD
DROP BORD
SHDW
OUT LINE
30 31 29 46 56 57 58 59 60 33 61 33 62 33
KEY 1
KEY 2
DSK
WIPE BORD
LUM
LIN
CLEAN
CHR
PTN
MAIN MASK
KEY INV
30 31 29 47 30 31 29 33 33 33 22 23 24 25
COLOR BKGD
1
2
3
4
34 42 64 32 33 35 36 37 38
SHIFT
KEY SRCE
FRAME MEM 1
AUX 1
AUX 2
AUX 3
EDIT PVW
26 41 39 40
KEY PRIOR
KEY1 ON
KEY2 ON
BKGD
30
31
28
MIX
WIPE
DME
63
27
AUTO TRANS
CUT
81 82
86 78 79 80 66
87 75 76 77 67
TRANS RATE
7
8
9
+/- EFFECT DIS
WIPE
4
5
6
CLEAR AUTO TRANS
LEARN
1
2
3
TRIM XPT DSBL
RECALL
0
USER WIPE
DIRECT
ENTER
88 72 73 74 68
89 71 70 90 69
FADE TO BLACK
83
DSK PVW
65
DSK MIX
DSK ON
84 85

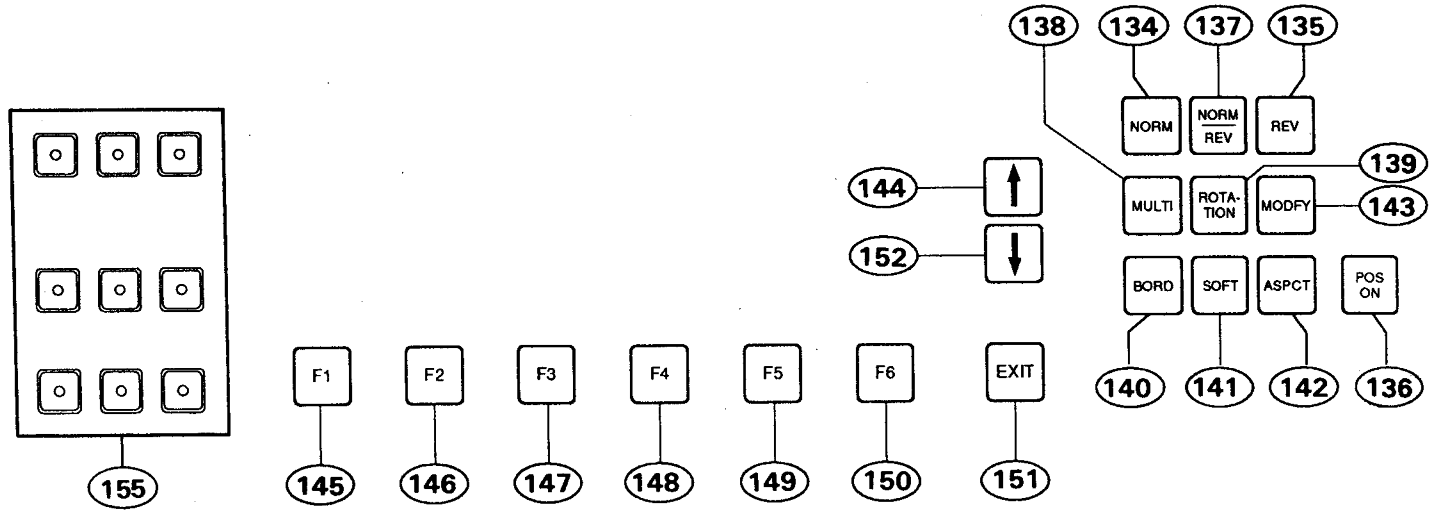
OPERATION UNIT 1

No.	Part No.	SP	Description
1	A-6279-486-E	s	FADER ASSY
2	A-8275-292-A	o	MOUNTED CIRCUIT BOARD, LED-178
3	A-8275-295-A	o	MOUNTED CIRCUIT BOARD, KY-306
4	A-8275-297-A	o	MOUNTED CIRCUIT BOARD, KY-307
5	1-466-182-11	s	ENCODER, ROTARY
6	1-692-416-11	s	SWITCH, PUSH
7	1-692-418-11	s	SWITCH, PUSH
8	1-692-426-21	s	SWITCH, PUSH
9	1-692-414-11	s	SWITCH, PUSH
10	1-692-747-11	s	SWITCH, PUSH
11	1-764-201-11	s	WIRE, FLEXIBLE CARD
12	2-139-115-01	o	GRIP (B), FADER
13	2-139-116-01	o	GRIP (A), FADER
14	2-139-171-01	s	SPACER (F)
15	2-264-136-00	o	SUPPORT, SWITCH, PUSH BUTTON
16	2-376-523-00	o	SUPPORT
17	3-678-079-01	s	+BVWH 3X8 GIZA TITE
18	3-678-081-01	o	TIP (1), SW(PACKING MATERIAL)
19	3-678-268-01	o	HOLDER, LED
20	3-701-443-11	s	WASHER, POLY 5MM DIA., 0.25T
21	3-701-508-00	s	SET SCREW, DOUBLE POINT 3X6
22	3-708-592-11	o	KEY TOP
23	3-708-592-21	o	KEY TOP
24	3-708-592-31	o	KEY TOP
25	3-708-592-41	o	KEY TOP
26	3-708-593-11	o	KEY TOP
27	3-708-593-21	o	KEY TOP
28	3-708-593-31	o	KEY TOP
29	3-708-593-51	o	KEY TOP
30	3-708-595-51	o	KEY TOP
31	3-708-595-61	o	KEY TOP
32	3-708-597-81	o	KEY TOP
33	3-708-599-31	o	KEY TOP
34	3-708-599-41	o	KEY TOP
35	3-708-599-61	o	KEY TOP
36	3-708-599-71	o	KEY TOP
37	3-708-599-81	o	KEY TOP
38	3-708-600-51	o	KEY TOP
39	3-708-601-01	o	KEY TOP
40	3-708-601-11	o	KEY TOP
41	3-708-601-51	o	KEY TOP
42	3-708-605-01	o	KEY TOP
43	3-708-754-21	o	KEY TOP
44	3-708-755-61	o	KEY TOP
45	3-708-755-71	o	KEY TOP
46	3-708-755-81	o	KEY TOP
47	3-708-756-01	o	KEY TOP
48	3-708-756-11	o	KEY TOP
49	3-708-756-21	o	KEY TOP
50	3-708-756-31	o	KEY TOP
51	3-708-756-41	o	KEY TOP
52	3-708-756-51	o	KEY TOP
53	3-708-756-81	o	KEY TOP
54	3-708-757-01	o	KEY TOP
55	3-708-757-11	o	KEY TOP
56	3-708-757-21	o	KEY TOP
57	3-708-757-31	o	KEY TOP
58	3-708-757-41	o	KEY TOP
59	3-708-757-51	o	KEY TOP
60	3-708-757-61	o	KEY TOP
61	3-708-757-81	o	KEY TOP
62	3-708-758-11	o	KEY TOP
63	3-708-758-21	o	KEY TOP
64	3-708-758-31	o	KEY TOP
65	3-708-759-01	o	KEY TOP
66	3-708-759-11	o	KEY TOP
67	3-708-759-21	o	KEY TOP
68	3-708-759-31	o	KEY TOP
69	3-708-759-41	o	KEY TOP
70	3-708-759-51	o	KEY TOP
71	3-708-759-61	o	KEY TOP
72	3-708-759-71	o	KEY TOP
73	3-708-759-81	o	KEY TOP
74	3-708-760-01	o	KEY TOP
75	3-708-760-11	o	KEY TOP
76	3-708-760-21	o	KEY TOP
77	3-708-760-31	o	KEY TOP
78	3-708-760-41	o	KEY TOP
79	3-708-760-51	o	KEY TOP
80	3-708-760-61	o	KEY TOP
81	3-708-760-71	o	KEY TOP
82	3-708-760-81	o	KEY TOP
83	3-708-761-01	o	KEY TOP
84	3-708-761-11	o	KEY TOP
85	3-708-761-21	o	KEY TOP
86	3-708-761-31	o	KEY TOP
87	3-708-761-41	o	KEY TOP
88	3-708-761-51	o	KEY TOP
89	3-708-761-61	o	KEY TOP
90	3-708-761-71	o	KEY TOP

OPERATION UNIT-1


1
2
LED-178 BOARD
3
KY-306 BOARD
4
KY-307 BOARD
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
KY-291 (CN41)
KY-308 (CN23)
KY-308 (CN20)
KY-308 (CN22)
PWH 3×5
PSW 3×10
PSW 4×8
B 3×14
B2×4
BV 3×8
*1
*2
*3
*4
*5
*6
*7
*8
*9
*10

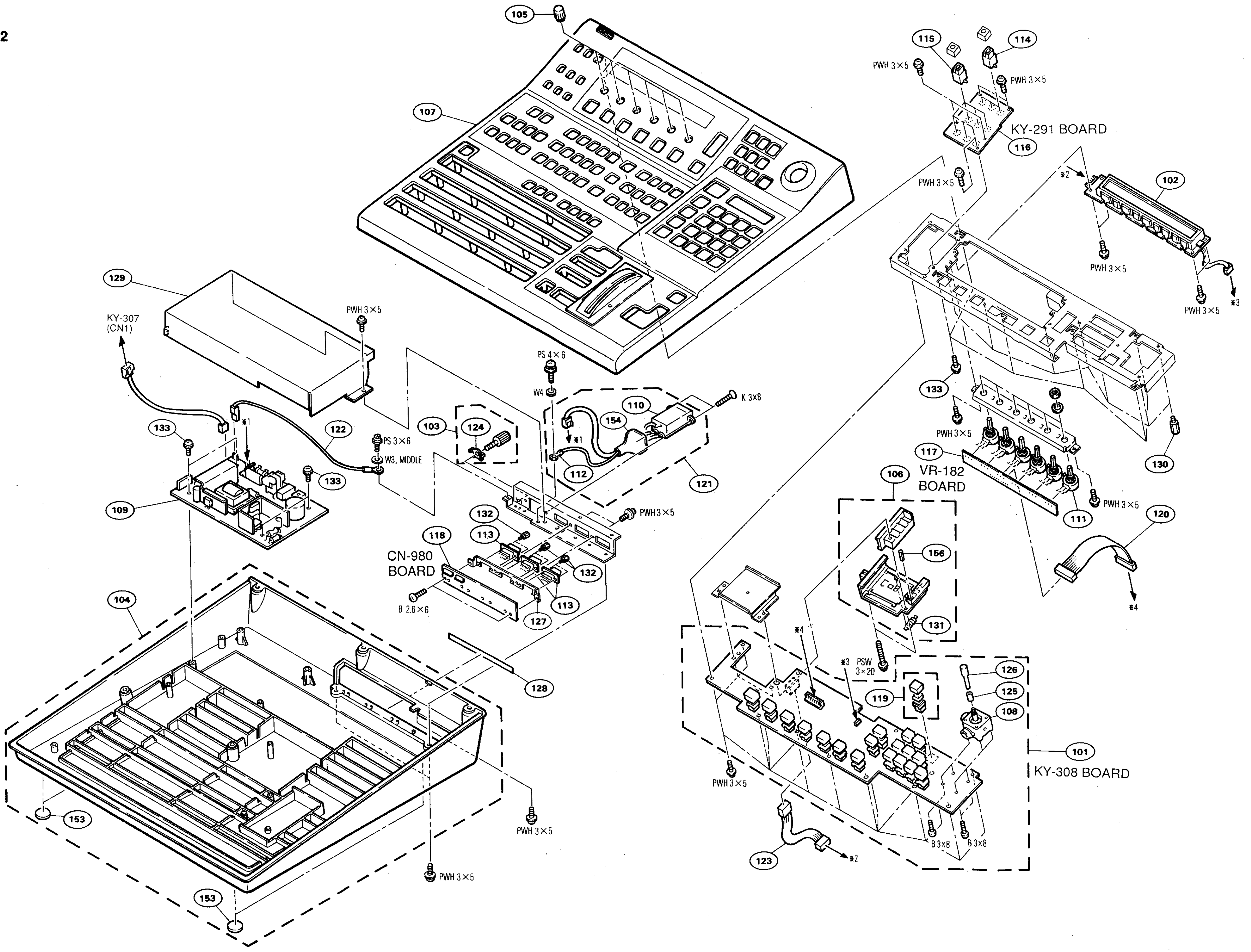
LOCATIONS OF KEY TOP
KY-291 BOARD
KY-308 BOARD



OPERATION UNIT 2

No.	Part No.	SP	Description
101	A-8275-298-A	o	MOUNTED CIRCUIT BOARD, KY-308
102	A-8275-312-A	s	LCD ASSY
103	X-2068-004-1	s	TERMINAL ASSY
104	X-2127-242-3	o	COVER ASSY, LOWER
105	X-3167-051-1	s	KNOB ASSY, BOLUME
106	X-3167-263-2	s	GUIDE ASSY, MP
107	X-3167-264-1	o	PANEL ASSY, UPPER
108	1-238-724-11	s	VOLUME (JOY STICK TYPE)
109	⚠1-413-769-11	s	SWITCHING REGULATOR (MRW-150)
110	⚠1-424-074-12	s	FILTER, NOISE
111	1-467-377-11	s	ENCODER, ROTARY
112	1-535-316-11	s	TERMINAL, GROUND (M4)
113	1-563-890-21	s	SOCKET, D-SUB CONNECTOR 9P
114	1-571-654-21	s	SWITCH, TACTIL
115	1-571-655-21	s	SWITCH, TACTIL
116	1-650-033-11	o	PRINTED CIRCUIT BOARD, KY-291
117	1-650-035-11	o	PRINTED CIRCUIT BOARD, VR-182
118	1-650-037-11	o	PRINTED CIRCUIT BOARD, CN-980
119	1-692-418-11	s	SWITCH, PUSH
120	1-952-559-11	o	HARNESS, SUB (VOLUME)
121	⚠1-952-562-12	o	HARNESS, SUB (AC (1))
122	1-952-563-13	o	HARNESS, (AC (1))
123	1-952-564-11	s	HARNESS (LCD)
124	2-068-008-00	s	WASHER
125	3-166-428-01	s	COVER, JOG
126	3-178-151-01	s	LEVER, JOG
127	3-182-575-01	o	BRACKET CONNECTOR
128	3-182-590-01	o	LABEL, CONNECTOR
129	3-182-595-02	o	COVER, INSULATED
130	3-183-618-01	o	SUPPORT, HEXAGON
131	3-577-037-00	s	SPRING, TENSION
132	3-673-910-21	o	SCREW, CONNECTOR
133	3-678-079-01	s	+BVWH 3×8 GIZA TITE
134	3-708-594-41	o	KEY TOP
135	3-708-594-51	o	KEY TOP
136	3-708-596-21	o	KEY TOP
137	3-708-599-11	o	KEY TOP
138	3-708-754-01	o	KEY TOP
139	3-708-754-11	o	KEY TOP
140	3-708-754-21	o	KEY TOP
141	3-708-754-31	o	KEY TOP
142	3-708-754-41	o	KEY TOP
143	3-708-754-51	o	KEY TOP
144	3-708-754-61	o	KEY TOP
145	3-708-754-71	o	KEY TOP
146	3-708-754-81	o	KEY TOP
147	3-708-755-01	o	KEY TOP
148	3-708-755-11	o	KEY TOP
149	3-708-755-21	o	KEY TOP
150	3-708-755-31	o	KEY TOP
151	3-708-755-41	o	KEY TOP
152	3-708-755-51	o	KEY TOP
153	3-714-101-01	o	LEG (FRONT)
154	4-601-466-11	s	COVER, 3P INLET
155	4-928-315-31	s	KEY TOP
156	7-626-305-21	s	SPRING-PIN 1X6

OPERATION UNIT-2


105
107
115
114
PWH 3×5
PWH 3×5
KY-291 BOARD
116
PWH 3×5
*2
102
PWH 3×5
PWH 3×5
*3
129
KY-307
(CN1)
PWH 3×5
PS 4×6
W4
K 3x8
110
154
*1
112
121
103
124
PS 3×6
W3, MIDDLE
122
133
*1
133
109
133
PWH 3×5
130
117
VR-182
BOARD
PWH 3×5
111
106
120
156
131
*4
132
113
PWH 3×5
118
CN-980
BOARD
132
113
B 2.6×6
127
104
128
*4
*3 PSW
3×20
126
125
119
108
101
KY-308 BOARD
PWH 3×5
B 3x8
B 3x8
123
*2
153
PWH 3×5
PWH 3×5
153

4-3. ELECTRICAL PARTS LIST

CN-980 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-650-037-11	o	PRINTED CIRCUIT BOARD, CN-980
C1	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
CN80	1-563-890-21	s	CONNECTOR, D-SUB 9P, FEMALE
CN81	1-563-890-21	s	CONNECTOR, D-SUB 9P, FEMALE
CN82	1-563-890-21	s	CONNECTOR, D-SUB 9P, FEMALE
CN83	1-506-489-11	s	CONNECTOR 10P, MALE
CN84	1-506-489-11	s	CONNECTOR 10P, MALE
FB1	1-543-309-21	s	BEAD, FERRITE
FB2	1-543-309-21	s	BEAD, FERRITE
FB3	1-543-309-21	s	BEAD, FERRITE
FB4	1-543-309-21	s	BEAD, FERRITE
FB5	1-543-309-21	s	BEAD, FERRITE
FB6	1-543-309-21	s	BEAD, FERRITE
FB7	1-543-309-21	s	BEAD, FERRITE
FB8	1-543-309-21	s	BEAD, FERRITE
FB9	1-543-309-21	s	BEAD, FERRITE
FB10	1-543-309-21	s	BEAD, FERRITE
FB11	1-543-309-21	s	BEAD, FERRITE
FB12	1-543-309-21	s	BEAD, FERRITE
FB13	1-543-309-21	s	BEAD, FERRITE
FB14	1-543-309-21	s	BEAD, FERRITE
FB15	1-216-295-11	s	RES, CHIP 0 5% 1/10W
FB16	1-216-295-11	s	RES, CHIP 0 5% 1/10W

KY-291 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-650-033-11	o	PRINTED CIRCUIT BOARD, KY-291
9pcs	4-928-315-31	s	KEY TOP
CN41	1-764-129-11	s	CONNECTOR, FPC 15P
D301	8-719-400-18	s	DIODE MA152WK
D302	8-719-400-18	s	DIODE MA152WK
D303	8-719-400-18	s	DIODE MA152WK
D304	8-719-400-18	s	DIODE MA152WK
D305	8-719-400-18	s	DIODE MA152WK
D306	8-719-400-18	s	DIODE MA152WK
S270	1-571-654-21	s	SWITCH, PUSH
S271	1-571-654-21	s	SWITCH, PUSH
S272	1-571-654-21	s	SWITCH, PUSH
S273	1-571-655-21	s	SWITCH, PUSH
S274	1-571-655-21	s	SWITCH, PUSH
S275	1-571-655-21	s	SWITCH, PUSH
S276	1-571-655-21	s	SWITCH, PUSH
S277	1-571-655-21	s	SWITCH, PUSH
S278	1-571-655-21	s	SWITCH, PUSH

KY-306 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-295-A	o	MOUNTED CIRCUIT BOARD, KY-306
1pc	3-708-759-11	o	KEY TOP (16 SQUARE)
1pc	3-708-759-21	o	KEY TOP (16 SQUARE)
1pc	3-708-759-31	o	KEY TOP (16 SQUARE)
1pc	3-708-759-41	o	KEY TOP (16 SQUARE)
1pc	3-708-759-51	o	KEY TOP (16 SQUARE)
1pc	3-708-759-61	o	KEY TOP (16 SQUARE)
1pc	3-708-759-71	o	KEY TOP (16 SQUARE)
1pc	3-708-759-81	o	KEY TOP (16 SQUARE)
1pc	3-708-760-01	o	KEY TOP (16 SQUARE)
1pc	3-708-760-11	o	KEY TOP (16 SQUARE)
1pc	3-708-760-21	o	KEY TOP (16 SQUARE)
1pc	3-708-760-31	o	KEY TOP (16 SQUARE)
1pc	3-708-760-41	o	KEY TOP (16 SQUARE)
1pc	3-708-760-51	o	KEY TOP (16 SQUARE)
1pc	3-708-760-61	o	KEY TOP (16 SQUARE)
1pc	3-708-761-31	o	KEY TOP (16 SQUARE)
1pc	3-708-761-41	o	KEY TOP (16 SQUARE)
1pc	3-708-761-51	o	KEY TOP (16 SQUARE)
1pc	3-708-761-61	o	KEY TOP (16 SQUARE)
1pc	3-708-761-71	o	KEY TOP (16 SQUARE)
C1	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C2	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C3	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C4	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C5	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C11	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C12	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C13	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C14	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C15	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C16	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C17	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C20	1-124-126-00	s	ELECT 47uF 20% 25V
C21	1-124-126-00	s	ELECT 47uF 20% 25V
CN51	1-566-515-11	s	CONNECTOR, FPC 15P
CN52	1-566-515-11	s	CONNECTOR, FPC 15P
D1	8-719-400-18	s	DIODE MA152WK
D2	8-719-400-18	s	DIODE MA152WK
D3	8-719-400-18	s	DIODE MA152WK
D4	8-719-400-18	s	DIODE MA152WK
D5	8-719-400-18	s	DIODE MA152WK
D6	8-719-400-18	s	DIODE MA152WK
D7	8-719-400-18	s	DIODE MA152WK
D8	8-719-400-18	s	DIODE MA152WK
D9	8-719-400-18	s	DIODE MA152WK
D10	8-719-400-18	s	DIODE MA152WK
D11	8-719-400-18	s	DIODE MA152WK
D12	8-719-400-18	s	DIODE MA152WK
IC1	8-759-926-77	s	IC SN74HC541NS
IC2	8-759-926-49	s	IC SN74HC245NS
IC3	8-759-926-77	s	IC SN74HC541NS
IC4	8-759-209-05	s	IC TMP82C79P-2
IC5	8-759-926-11	s	IC SN74HC138NS
IC6	8-759-232-86	s	IC TC74HC238AF
IC7	8-759-206-41	s	IC TD62083AP
IC8	8-759-239-77	s	IC TD62783AP

(KY-306 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R1	1-247-807-31	s	CARBON 100 5% 1/4W
R2	1-247-807-31	s	CARBON 100 5% 1/4W
R3	1-247-807-31	s	CARBON 100 5% 1/4W
R4	1-247-807-31	s	CARBON 100 5% 1/4W
R5	1-247-807-31	s	CARBON 100 5% 1/4W
R6	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R7	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R8	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R9	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R10	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R11	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R12	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R13	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R14	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R15	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R16	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R17	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R18	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R19	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R20	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R21	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R22	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R23	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R24	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R25	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R26	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R27	1-249-393-11	s	CARBON 10 5% 1/4W
R28	1-249-393-11	s	CARBON 10 5% 1/4W
R29	1-249-393-11	s	CARBON 10 5% 1/4W
R30	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R31	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R32	1-249-395-11	s	CARBON 15 5% 1/4W
R33	1-249-395-11	s	CARBON 15 5% 1/4W
R34	1-249-395-11	s	CARBON 15 5% 1/4W
R35	1-249-395-11	s	CARBON 15 5% 1/4W
R36	1-249-395-11	s	CARBON 15 5% 1/4W
S170	1-692-747-71	s	SWITCH, PUSH (16 SQUARE)
S171	1-692-747-61	s	SWITCH, PUSH (16 SQUARE)
S172	1-692-747-51	s	SWITCH, PUSH (16 SQUARE)
S173	1-692-747-41	s	SWITCH, PUSH (16 SQUARE)
S175	1-692-747-81	s	SWITCH, PUSH (16 SQUARE)
S176	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S177	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S178	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S179	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S180	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S181	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S182	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S190	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S191	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S192	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S193	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S194	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S195	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S196	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S197	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)

KY-307 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-297-A	o	MOUNTED CIRCUIT BOARD, KY-307
4pcs	3-678-268-01	o	HOLDER, LED
1pc	3-708-592-11	o	KEY TOP (13 SQUARE-B)
1pc	3-708-592-21	o	KEY TOP (13 SQUARE-B)
1pc	3-708-592-31	o	KEY TOP (13 SQUARE-B)
1pc	3-708-592-41	o	KEY TOP (13 SQUARE-B)
1pc	3-708-593-11	o	KEY TOP (13 SQUARE-B)
1pc	3-708-593-21	o	KEY TOP (13 SQUARE-B)
1pc	3-708-593-31	o	KEY TOP (13 SQUARE-B)
1pc	3-708-593-51	o	KEY TOP (13 SQUARE-B)
1pc	3-708-595-51	o	KEY TOP (13 SQUARE-B)
1pc	3-708-595-61	o	KEY TOP (13 SQUARE-B)
1pc	3-708-597-81	o	KEY TOP (13 SQUARE-B)
2pcs	3-708-599-31	o	KEY TOP (13 SQUARE-B)
1pc	3-708-599-41	o	KEY TOP (13 SQUARE-B)
1pc	3-708-599-61	o	KEY TOP (13 SQUARE-B)
1pc	3-708-599-71	o	KEY TOP (13 SQUARE-B)
1pc	3-708-599-81	o	KEY TOP (13 SQUARE-B)
1pc	3-708-600-51	o	KEY TOP (13 SQUARE-B)
1pc	3-708-601-01	o	KEY TOP (13 SQUARE-B)
1pc	3-708-601-11	o	KEY TOP (13 SQUARE-B)
1pc	3-708-601-51	o	KEY TOP (13 SQUARE-B)
1pc	3-708-605-01	o	KEY TOP (19 SQUARE)
1pc	3-708-754-21	o	KEY TOP (13 SQUARE)
1pc	3-708-755-61	o	KEY TOP (13 SQUARE)
1pc	3-708-755-71	o	KEY TOP (13 SQUARE)
1pc	3-708-755-81	o	KEY TOP (13 SQUARE)
1pc	3-708-756-01	o	KEY TOP (13 SQUARE)
1pc	3-708-756-11	o	KEY TOP (13 SQUARE)
1pc	3-708-756-21	o	KEY TOP (13 SQUARE)
1pc	3-708-756-31	o	KEY TOP (13 SQUARE)
1pc	3-708-756-41	o	KEY TOP (13 SQUARE)
1pc	3-708-756-51	o	KEY TOP (13 SQUARE)
1pc	3-708-756-81	o	KEY TOP (13 SQUARE)
1pc	3-708-757-01	o	KEY TOP (13 SQUARE)
1pc	3-708-757-11	o	KEY TOP (13 SQUARE)
1pc	3-708-757-21	o	KEY TOP (13 SQUARE)
1pc	3-708-757-31	o	KEY TOP (13 SQUARE)
1pc	3-708-757-41	o	KEY TOP (13 SQUARE)
1pc	3-708-757-51	o	KEY TOP (13 SQUARE)
1pc	3-708-757-61	o	KEY TOP (13 SQUARE)
1pc	3-708-757-81	o	KEY TOP (13 SQUARE)
1pc	3-708-758-11	o	KEY TOP (13 SQUARE)
1pc	3-708-758-21	o	KEY TOP (13 SQUARE)
1pc	3-708-758-31	o	KEY TOP (13 SQUARE)
1pc	3-708-759-01	o	KEY TOP (16 SQUARE)
1pc	3-708-760-71	o	KEY TOP (16 SQUARE)
1pc	3-708-760-81	o	KEY TOP (16 SQUARE)
1pc	3-708-761-01	o	KEY TOP (16 SQUARE)
1pc	3-708-761-11	o	KEY TOP (16 SQUARE)
1pc	3-708-761-21	o	KEY TOP (16 SQUARE)
BZ1	1-529-025-00	s	BUZZER
C1	1-164-346-11	s	CERAMIC 1uF 16V
C2	1-126-395-11	s	ELECT 22uF 20% 16V
C3	1-164-346-11	s	CERAMIC 1uF 16V
C4	1-163-227-11	s	CERAMIC, CHIP 10PF 5% 50V
C5	1-126-394-11	s	ELECT, CHIP 10uF 20% 16V

(KY-307 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
C6	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C7	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C8	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C9	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C11	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C12	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C13	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C14	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C15	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C16	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C17	1-126-392-11	s	ELECT, CHIP 100uF 20% 6.3V
C18	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C19	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C20	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C21	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C22	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C23	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C24	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C26	1-128-394-11	s	ELECT 220uF 20% 10V
C27	1-128-394-11	s	ELECT 220uF 20% 10V
C28	1-128-394-11	s	ELECT 220uF 20% 10V
C29	1-128-398-11	s	ELECT 220uF 20% 16V
C32	1-163-011-11	s	CERAMIC 0.0015uF 10% 50V
C40	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C150	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C151	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C152	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C153	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C154	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C160	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C161	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C201	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C202	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C203	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C204	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C205	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C206	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C207	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C208	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C209	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C216	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C217	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C218	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C219	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C220	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C221	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C306	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C307	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C308	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C309	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C310	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C311	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C312	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C313	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C314	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C315	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C321	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C322	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C323	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V

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Ref. No. or Q'ty	Part No.	SP	Description
C324	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C325	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C326	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C501	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C502	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C503	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C504	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C505	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C506	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C507	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C508	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C511	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C512	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C513	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C514	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C515	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C601	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C602	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C603	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C604	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C605	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C606	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C607	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C608	1-163-251-11	s	CERAMIC, CHIP 100PF 5% 50V
C611	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C612	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C614	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C615	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
CN1	1-564-241-00	o	CONNECTOR, 4P, MALE
CN2	1-566-547-11	s	CONNECTOR, FPC 15P
CN3	1-566-547-11	s	CONNECTOR, FPC 15P
CN4	1-506-469-11	s	CONNECTOR 4P, MALE
CN5	1-566-547-11	s	CONNECTOR, FPC 15P
CN6	1-566-547-11	s	CONNECTOR, FPC 15P
CN7	1-566-547-11	s	CONNECTOR, FPC 15P
CN13	1-506-489-11	s	CONNECTOR 10P, MALE
CN14	1-506-489-11	s	CONNECTOR 10P, MALE
CN31	1-566-547-11	s	CONNECTOR, FPC 15P
CN32	1-566-547-11	s	CONNECTOR, FPC 15P
CN150	1-526-662-21	o	SOCKET, IC (DP) 40P
D1	8-719-951-19	s	LED VR1101W, RED
D2	8-719-951-19	s	LED VR1101W, RED
D3	8-719-975-84	s	LED AY1101W-88, YELLOW
D4	8-719-951-14	s	LED AA1101W, ORANGE
D5	8-719-951-19	s	LED VR1101W, RED
D6	8-719-951-19	s	LED VR1101W, RED
D7	8-719-400-18	s	DIODE MA152WK
D94	8-719-109-84	s	DIODE RD5.1ES-B1
D201	8-719-951-14	s	LED AA1101W, ORANGE
D202	8-719-951-14	s	LED AA1101W, ORANGE
D203	8-719-951-14	s	LED AA1101W, ORANGE
D204	8-719-951-14	s	LED AA1101W, ORANGE
D205	8-719-938-67	s	LED GL3EG8, GREEN
D206	8-719-938-67	s	LED GL3EG8, GREEN
D207	8-719-938-67	s	LED GL3EG8, GREEN
D208	8-719-938-67	s	LED GL3EG8, GREEN
D209	8-719-938-67	s	LED GL3EG8, GREEN
D210	8-719-938-67	s	LED GL3EG8, GREEN

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Ref. No. or Q'ty	Part No.	SP	Description
D211	8-719-938-67	s	LED GL3EG8, GREEN
D212	8-719-938-67	s	LED GL3EG8, GREEN
D213	8-719-938-67	s	LED GL3EG8, GREEN
D214	8-719-938-67	s	LED GL3EG8, GREEN
D401	8-719-400-18	s	DIODE MA152WK
D402	8-719-400-18	s	DIODE MA152WK
D403	8-719-400-18	s	DIODE MA152WK
D404	8-719-400-18	s	DIODE MA152WK
D405	8-719-400-18	s	DIODE MA152WK
D406	8-719-400-18	s	DIODE MA152WK
D407	8-719-400-18	s	DIODE MA152WK
D408	8-719-400-18	s	DIODE MA152WK
D409	8-719-400-18	s	DIODE MA152WK
D410	8-719-400-18	s	DIODE MA152WK
D411	8-719-400-18	s	DIODE MA152WK
D412	8-719-400-18	s	DIODE MA152WK
D413	8-719-400-18	s	DIODE MA152WK
D414	8-719-400-18	s	DIODE MA152WK
D415	8-719-400-18	s	DIODE MA152WK
D416	8-719-400-18	s	DIODE MA152WK
D417	8-719-400-18	s	DIODE MA152WK
D418	8-719-400-18	s	DIODE MA152WK
D419	8-719-400-18	s	DIODE MA152WK
D420	8-719-400-18	s	DIODE MA152WK
D421	8-719-400-18	s	DIODE MA152WK
D422	8-719-400-18	s	DIODE MA152WK
D423	8-719-400-18	s	DIODE MA152WK
D424	8-719-400-18	s	DIODE MA152WK
D501	8-719-400-18	s	DIODE MA152WK
D502	8-719-400-18	s	DIODE MA152WK
D503	8-719-400-18	s	DIODE MA152WK
D504	8-719-400-18	s	DIODE MA152WK
D505	8-719-400-18	s	DIODE MA152WK
D506	8-719-400-18	s	DIODE MA152WK
D507	8-719-400-18	s	DIODE MA152WK
D508	8-719-400-18	s	DIODE MA152WK
D509	8-719-400-18	s	DIODE MA152WK
D510	8-719-400-18	s	DIODE MA152WK
D511	8-719-400-18	s	DIODE MA152WK
D512	8-719-400-18	s	DIODE MA152WK
D513	8-719-400-18	s	DIODE MA152WK
D514	8-719-400-18	s	DIODE MA152WK
D515	8-719-400-18	s	DIODE MA152WK
D516	8-719-400-18	s	DIODE MA152WK
D601	8-719-400-18	s	DIODE MA152WK
D602	8-719-400-18	s	DIODE MA152WK
D603	8-719-400-18	s	DIODE MA152WK
D604	8-719-400-18	s	DIODE MA152WK
D605	8-719-400-18	s	DIODE MA152WK
D606	8-719-400-18	s	DIODE MA152WK
D607	8-719-400-18	s	DIODE MA152WK
D608	8-719-400-18	s	DIODE MA152WK
D609	8-719-400-18	s	DIODE MA152WK
D610	8-719-400-18	s	DIODE MA152WK
D611	8-719-400-18	s	DIODE MA152WK
D612	8-719-400-18	s	DIODE MA152WK
D613	8-719-400-18	s	DIODE MA152WK
D614	8-719-400-18	s	DIODE MA152WK
D615	8-719-400-18	s	DIODE MA152WK

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Ref. No. or Q'ty	Part No.	SP	Description
D616	8-719-400-18	s	DIODE MA152WK
IC1	8-759-973-71	s	IC TL7705CPS-B
IC2	8-759-030-24	s	IC MC34050M
IC3	8-759-030-24	s	IC MC34050M
IC4	8-759-984-65	s	IC SN751701PS
IC6	8-759-080-00	s	IC TC74VHC540FS
IC7	8-759-158-17	s	IC TMP68301AF-16
IC8	8-759-244-04	s	IC TC74AC163F
IC9	8-759-255-23	o	IC 22V10-MAP-V1.00, PLD
IC11	8-759-079-60	s	IC TC74VHC32FS
IC12	8-759-079-87	s	IC TC74VHC245FS
IC13	8-759-079-87	s	IC TC74VHC245FS
IC14	8-759-079-87	s	IC TC74VHC245FS
IC15	8-759-079-46	s	IC TC74VHC00FS
IC150	8-759-255-22	o	IC 27C1024-MON-V1.00, EPROM
IC151	8-759-079-49	s	IC TC74VHC04FS
IC152	8-759-045-27	s	IC CXK581001M-70L
IC153	8-759-045-27	s	IC CXK581001M-70L
IC154	8-759-098-89	s	IC AM29F010-75PC
IC155	8-759-098-89	s	IC AM29F010-75PC
IC156	8-759-925-78	s	IC SN74HC10NS
IC201	8-759-080-02	s	IC TC74VHC541FS
IC202	8-759-080-02	s	IC TC74VHC541FS
IC203	8-759-080-02	s	IC TC74VHC541FS
IC204	8-759-079-70	s	IC TC74VHC138FS
IC205	8-759-079-70	s	IC TC74VHC138FS
IC206	8-759-079-83	s	IC TC74VHC240FS
IC207	8-759-080-06	s	IC TC74VHC574FS
IC208	8-759-079-90	s	IC TC74VHC273FS
IC209	8-759-080-06	s	IC TC74VHC574FS
IC210	8-759-098-12	s	IC TD62083F
IC211	8-759-112-63	s	IC UPD4701AC
IC212	8-759-195-04	s	IC M66011FP
IC301	8-759-080-02	s	IC TC74VHC541FS
IC302	8-759-234-67	s	IC TMP82C79M-2
IC303	8-759-232-86	s	IC TC74HC238AF
IC304	8-759-079-70	s	IC TC74VHC138FS
IC305	8-759-011-65	s	IC MC74HC4053F
IC306	8-759-011-65	s	IC MC74HC4053F
IC307	8-759-011-65	s	IC MC74HC4053F
IC308	8-759-098-12	s	IC TD62083F
IC309	8-759-098-12	s	IC TD62083F
IC310	8-759-098-12	s	IC TD62083F
IC311	8-759-098-11	s	IC TD62783F
IC312	8-759-098-11	s	IC TD62783F
IC501	8-759-926-77	s	IC SN74HC541NS
IC502	8-759-234-67	s	IC TMP82C79M-2
IC503	8-759-926-12	s	IC SN74HC139NS
IC504	8-759-232-86	s	IC TC74HC238AF
IC505	8-759-098-12	s	IC TD62083F
IC506	8-759-098-11	s	IC TD62783F
IC601	8-759-926-77	s	IC SN74HC541NS
IC602	8-759-234-67	s	IC TMP82C79M-2
IC604	8-759-232-86	s	IC TC74HC238AF
IC605	8-759-098-12	s	IC TD62083F
IC606	8-759-098-11	s	IC TD62783F
IC701	8-759-080-02	s	IC TC74VHC541FS
IC702	8-759-080-02	s	IC TC74VHC541FS

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Ref. No. or Q'ty	Part No.	SP	Description
R1	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R2	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R3	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R4	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R5	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R6	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R7	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R8	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R9	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R10	1-216-639-11	s	METAL, CHIP 330 0.5% 1/10W
R11	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R13	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R14	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R15	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R16	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R17	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R20	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R21	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R22	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R23	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R24	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R25	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R26	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R27	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R28	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R29	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R30	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R31	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R32	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R33	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R34	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R35	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R36	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R37	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R38	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R39	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R40	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R41	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R42	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R43	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R44	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R45	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R46	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R47	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R48	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R49	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R50	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R51	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R52	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R53	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R54	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R55	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R56	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R57	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R58	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R59	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R60	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R61	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W

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Ref. No. or Q'ty	Part No.	SP	Description
R62	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R63	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R64	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R65	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R66	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R67	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R68	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R69	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R70	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R71	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R72	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R73	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R74	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R75	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R76	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R77	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R78	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R79	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R80	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R81	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R82	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R83	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R84	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R85	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R86	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R87	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R88	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R89	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R90	1-216-611-11	s	METAL, CHIP 22 0.5% 1/10W
R91	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R92	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R93	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R95	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R96	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R97	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R98	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R99	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R100	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R101	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R102	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R103	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R104	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R105	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R106	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R107	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R108	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R109	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R110	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R111	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R112	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R113	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R114	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R115	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R116	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R117	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R118	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R119	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R120	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R121	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W

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Ref. No. or Q'ty	Part No.	SP	Description
R122	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R123	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R124	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R125	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R126	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R127	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R128	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R129	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R130	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R131	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R132	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R133	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R134	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R135	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R136	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R137	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R138	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R139	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R140	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R141	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R142	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R143	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R144	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R145	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R146	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R147	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R148	1-218-776-11	s	METAL 1M 0.5% 1/10W
R149	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R150	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R151	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R201	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R202	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R203	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R204	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R205	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R206	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R207	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R208	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R209	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R210	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R211	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R212	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R213	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R214	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R215	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R216	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R217	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R218	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R219	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R224	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R225	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R226	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R227	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R228	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R229	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R230	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R231	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R232	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R233	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W

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Ref. No. or Q'ty	Part No.	SP	Description
R234	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R235	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R236	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R237	1-216-633-11	s	METAL, CHIP 180 0.5% 1/10W
R238	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R239	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R240	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R241	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R242	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R243	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R244	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R245	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R246	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R301	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R302	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R303	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R304	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R305	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R306	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R307	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R308	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R309	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R310	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R311	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R312	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R313	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R314	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R315	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R316	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R317	1-216-621-11	s	METAL, CHIP 56 0.5% 1/10W
R318	1-216-621-11	s	METAL, CHIP 56 0.5% 1/10W
R319	1-216-621-11	s	METAL, CHIP 56 0.5% 1/10W
R320	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R321	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R322	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R323	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R324	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R325	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R326	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R327	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R515	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R516	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R517	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R518	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R519	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R520	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R521	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R522	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R523	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R524	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R525	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R526	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R527	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R528	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R529	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R530	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R531	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R532	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R533	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W

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Ref. No. or Q'ty	Part No.	SP	Description
R534	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R535	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R536	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R537	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R538	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R615	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R616	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R617	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R618	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R619	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R620	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R621	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R622	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R623	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R624	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R625	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R626	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R627	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R628	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R629	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R630	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R631	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R632	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R633	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R634	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R635	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R636	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R637	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R638	1-216-607-11	s	METAL, CHIP 15 0.50% 1/10W
R700	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R701	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R702	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R703	1-216-658-11	s	METAL, CHIP 2K 0.5% 1/10W
R705	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R706	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R707	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R708	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R710	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R711	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R712	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R713	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R714	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R715	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R716	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R717	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
S21	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S22	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S23	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S24	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S25	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S26	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S27	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S28	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S29	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S30	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S31	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S32	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S41	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S42	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)

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Ref. No. or Q'ty	Part No.	SP	Description
S43	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S44	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S45	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S46	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S47	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S48	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S49	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S50	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S51	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S52	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S61	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S62	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S63	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S64	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S65	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S66	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S67	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S68	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S69	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S70	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S71	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S72	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S81	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S82	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S83	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S84	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S85	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S86	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S87	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S88	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S89	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S90	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S91	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S92	1-692-416-11	s	SWITCH, PUSH (19 SQUARE)
S100	1-692-426-31	s	SWITCH, PUSH (13 SQUARE)
S101	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S102	1-692-424-51	s	SWITCH, PUSH (13 SQUARE)
S103	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S104	1-692-426-21	s	SWITCH, PUSH (13 SQUARE)
S105	1-692-426-51	s	SWITCH, PUSH (13 SQUARE)
S106	1-692-426-61	s	SWITCH, PUSH (13 SQUARE)
S107	1-692-426-71	s	SWITCH, PUSH (13 SQUARE)
S108	1-692-427-51	s	SWITCH, PUSH (13 SQUARE)
S110	1-692-421-91	s	SWITCH, PUSH (13 SQUARE)
S111	1-692-422-11	s	SWITCH, PUSH (13 SQUARE)
S112	1-692-419-71	s	SWITCH, PUSH (13 SQUARE)
S113	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S114	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S115	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S116	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S117	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S118	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S119	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S120	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S121	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S122	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S123	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S125	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S130	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)

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Ref. No. or Q'ty	Part No.	SP	Description
S132	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S134	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S135	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S136	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S137	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S140	1-692-421-91	s	SWITCH, PUSH (13 SQUARE)
S141	1-692-422-11	s	SWITCH, PUSH (13 SQUARE)
S142	1-692-419-71	s	SWITCH, PUSH (13 SQUARE)
S143	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S144	1-692-421-91	s	SWITCH, PUSH (13 SQUARE)
S145	1-692-422-11	s	SWITCH, PUSH (13 SQUARE)
S146	1-692-419-71	s	SWITCH, PUSH (13 SQUARE)
S147	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S150	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S151	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S160	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S161	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S162	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S163	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S164	1-692-418-21	s	SWITCH, PUSH (13 SQUARE)
S165	1-692-418-31	s	SWITCH, PUSH (13 SQUARE)
S166	1-692-418-41	s	SWITCH, PUSH (13 SQUARE)
S167	1-692-418-51	s	SWITCH, PUSH (13 SQUARE)
S201	1-570-623-11	s	SWITCH, DIP 8-CKT
S220	1-692-419-41	s	SWITCH, PUSH (13 SQUARE)
S221	1-692-419-51	s	SWITCH, PUSH (13 SQUARE)
S222	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S224	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S225	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S230	1-692-419-31	s	SWITCH, PUSH (13 SQUARE)
S231	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S232	1-692-428-11	s	SWITCH, PUSH (13 SQUARE)
S233	1-692-428-21	s	SWITCH, PUSH (13 SQUARE)
S234	1-692-421-91	s	SWITCH, PUSH (13 SQUARE)
S235	1-692-422-11	s	SWITCH, PUSH (13 SQUARE)
S240	1-692-747-11	s	SWITCH, PUSH (16 SQUARE)
S243	1-692-414-11	s	SWITCH, PUSH (16 SQUARE)
S246	1-692-747-21	s	SWITCH, PUSH (16 SQUARE)
S247	1-692-747-31	s	SWITCH, PUSH (16 SQUARE)
X1	1-567-787-11	s	OSCILLATOR, CRYSTAL 32.00000MHz

KY-308 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-298-A	o	MOUNTED CIRCUIT BOARD, KY-308
1pc	3-708-594-41	o	KEY TOP (13 SQUARE-B)
1pc	3-708-594-51	o	KEY TOP (13 SQUARE-B)
1pc	3-708-596-21	o	KEY TOP (13 SQUARE-B)
1pc	3-708-599-11	o	KEY TOP (13 SQUARE-B)
1pc	3-708-754-01	o	KEY TOP (13 SQUARE)
1pc	3-708-754-11	o	KEY TOP (13 SQUARE)
1pc	3-708-754-21	o	KEY TOP (13 SQUARE)
1pc	3-708-754-31	o	KEY TOP (13 SQUARE)
1pc	3-708-754-41	o	KEY TOP (13 SQUARE)
1pc	3-708-754-51	o	KEY TOP (13 SQUARE)
1pc	3-708-754-61	o	KEY TOP (13 SQUARE)
1pc	3-708-754-71	o	KEY TOP (13 SQUARE)
1pc	3-708-754-81	o	KEY TOP (13 SQUARE)
1pc	3-708-755-01	o	KEY TOP (13 SQUARE)
1pc	3-708-755-11	o	KEY TOP (13 SQUARE)
1pc	3-708-755-21	o	KEY TOP (13 SQUARE)
1pc	3-708-755-31	o	KEY TOP (13 SQUARE)
1pc	3-708-755-41	o	KEY TOP (13 SQUARE)
1pc	3-708-755-51	o	KEY TOP (13 SQUARE)
4pcs	7-685-546-14	s	SCREW +BTP 3X8 TYPE2 N-S
C1	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C2	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C3	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C4	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C5	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C6	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C7	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C8	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C9	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C10	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C11	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C12	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C13	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C14	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C15	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C16	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C17	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C18	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C19	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C20	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C21	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C22	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C23	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C24	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C25	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C26	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C27	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C28	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C29	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C30	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C31	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C32	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C33	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C34	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C35	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C36	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C37	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V

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Ref. No. or Q'ty	Part No.	SP	Description
C38	1-163-137-00	s	CERAMIC, CHIP 680PF 5% 50V
C39	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C40	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C41	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C42	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C44	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
C46	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C47	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C201	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
CN20	1-764-129-11	s	CONNECTOR, FPC 15P
CN21	1-506-480-11	s	CONNECTOR, 15P, MALE
CN22	1-764-129-11	s	CONNECTOR, FPC 15P
CN23	1-764-129-11	s	CONNECTOR, FPC 15P
CN24	1-506-469-11	s	CONNECTOR 4P, MALE
CN25	1-564-862-11	o	CONNECTOR (STRAIGHT) 14P, MALE
CN26	1-764-133-11	s	CONNECTOR, BB 40P, FEMALE
D1	8-719-951-19	s	LED VR1101W, RED
D2	8-719-951-19	s	LED VR1101W, RED
IC1	8-759-926-77	s	IC SN74HC541NS
IC2	8-759-926-49	s	IC SN74HC245NS
IC3	8-759-926-11	s	IC SN74HC138NS
IC4	8-759-925-74	s	IC TC74HC04NS
IC5	8-759-926-11	s	IC SN74HC138NS
IC6	8-759-067-51	s	IC MB88347PFV-G-BND
IC7	8-759-938-68	s	IC CXD1095Q
IC8	8-759-245-00	s	IC TD62306F
IC9	8-759-245-00	s	IC TD62306F
IC10	8-759-245-00	s	IC TD62306F
IC11	8-759-245-00	s	IC TD62306F
IC12	8-759-938-68	s	IC CXD1095Q
IC13	8-759-245-00	s	IC TD62306F
IC14	8-759-245-00	s	IC TD62306F
IC15	8-759-149-10	s	IC UPD4702G
IC16	8-759-149-10	s	IC UPD4702G
IC17	8-759-149-10	s	IC UPD4702G
IC18	8-759-149-10	s	IC UPD4702G
IC19	8-759-149-10	s	IC UPD4702G
IC20	8-759-149-10	s	IC UPD4702G
IC21	8-759-009-10	s	IC MC14069UBF
IC22	8-759-403-48	s	IC AN6701S
IC23	8-759-908-17	s	IC TL082CPS
IC24	8-759-106-58	s	IC UPD7004C
IC25	8-759-925-78	s	IC SN74HC10NS
IC100	8-759-938-68	s	IC CXD1095Q
L1	1-410-658-31	s	INDUCTOR, CHIP 220UH
R1	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R2	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R3	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R4	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R5	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R6	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R7	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R8	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R9	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R10	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R11	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W

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Ref. No. or Q'ty	Part No.	SP	Description
R12	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R13	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R14	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R15	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R16	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R17	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R18	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R19	1-216-635-11	s	METAL, CHIP 220 0.5% 1/10W
R20	1-216-647-11	s	METAL, CHIP 680 0.5% 1/10W
R21	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R22	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R23	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R24	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R25	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R26	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R27	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R28	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R29	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R30	1-216-603-11	s	METAL, CHIP 10 0.5% 1/10W
R31	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R32	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R33	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R34	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R35	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R36	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R37	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R38	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R39	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R40	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R41	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R42	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R43	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R44	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R45	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R46	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R47	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R48	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R49	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R50	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R51	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R52	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R53	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R54	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R55	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R56	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R57	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R58	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R59	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R60	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R61	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R62	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R63	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W
R64	1-216-682-11	s	METAL, CHIP 20K 0.5% 1/10W
R65	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R66	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R67	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R68	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R69	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R70	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W

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Ref. No. or Q'ty	Part No.	SP	Description
R71	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R72	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R73	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R74	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R75	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R76	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R77	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R78	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R79	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R80	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R81	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R82	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R83	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R84	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R85	1-218-776-11	s	METAL 1M 0.5% 1/10W
R86	1-218-776-11	s	METAL 1M 0.5% 1/10W
R87	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R88	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R89	1-218-776-11	s	METAL 1M 0.5% 1/10W
R90	1-218-776-11	s	METAL 1M 0.5% 1/10W
R91	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R92	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R93	1-218-776-11	s	METAL 1M 0.5% 1/10W
R94	1-218-776-11	s	METAL 1M 0.5% 1/10W
R95	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R96	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R97	1-218-776-11	s	METAL 1M 0.5% 1/10W
R98	1-218-776-11	s	METAL 1M 0.5% 1/10W
R99	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R100	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R101	1-218-776-11	s	METAL 1M 0.5% 1/10W
R102	1-218-776-11	s	METAL 1M 0.5% 1/10W
R103	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R104	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R105	1-218-776-11	s	METAL 1M 0.5% 1/10W
R106	1-218-776-11	s	METAL 1M 0.5% 1/10W
R107	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R108	1-216-671-11	s	METAL, CHIP 6.8K 0.5% 1/10W
R109	1-216-667-11	s	METAL, CHIP 4.7K 0.5% 1/10W
R110	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R111	1-216-685-11	s	METAL, CHIP 27K 0.5% 1/10W
R113	1-216-041-00	s	METAL, CHIP 470 5% 1/10W
R114	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R115	1-216-627-11	s	METAL, CHIP 100 0.5% 1/10W
R200	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R201	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R202	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R203	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R204	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R205	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R206	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R207	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R208	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R209	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R210	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R211	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R212	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R213	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R214	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W

(KY-308 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R215	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R216	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R217	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R218	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R219	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R220	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R221	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R222	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R223	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R224	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R225	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R226	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R227	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R228	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R229	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R230	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R231	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R233	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R234	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R235	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R236	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R237	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R238	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R239	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R240	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R241	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R242	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R243	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R244	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R245	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R246	1-216-699-11	s	METAL, CHIP 100K 0.5% 1/10W
R300	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R301	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R302	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R303	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R304	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R305	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R306	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R307	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R308	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R309	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R310	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R311	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R312	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R313	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R314	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R315	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R316	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R317	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R318	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R319	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R320	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R321	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R322	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R323	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R324	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R325	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R326	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R327	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W

(KY-308 BOARD)

Ref. No. or Q'ty	Part No.	SP	Description
R328	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R329	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R330	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R331	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R332	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R333	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R334	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R335	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R336	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R337	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R338	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R339	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R340	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R341	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
R342	1-216-683-11	s	METAL, CHIP 22K 0.5% 1/10W
RV1	1-238-724-11	s	RES, VAR(STICK) CARBON 10Kx2
S200	1-692-422-71	s	SWITCH, PUSH (13 SQUARE)
S202	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S203	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S204	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S205	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S206	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S207	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S210	1-692-420-81	s	SWITCH, PUSH (13 SQUARE)
S211	1-692-425-91	s	SWITCH, PUSH (13 SQUARE)
S212	1-692-420-71	s	SWITCH, PUSH (13 SQUARE)
S250	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S251	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S252	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S253	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S254	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S255	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S262	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S263	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)
S265	1-692-418-11	s	SWITCH, PUSH (13 SQUARE)

LED-178 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8275-292-A	o	MOUNTED CIRCUIT BOARD, LED-178
C1	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C2	1-126-396-11	s	ELECT, CHIP 47uF 20% 16V
CN40	1-566-547-11	s	CONNECTOR, FPC 15P
D1	8-719-979-87	s	LED LD-701MG, GRN
D2	8-719-979-87	s	LED LD-701MG, GRN
D3	8-719-979-87	s	LED LD-701MG, GRN
IC1	8-759-195-05	s	IC MAX7219CNG
ND1	8-719-045-49	s	LED GL8E03D, YELLOWISH GREEN
ND2	8-719-045-49	s	LED GL8E03D, YELLOWISH GREEN
ND3	8-719-045-49	s	LED GL8E03D, YELLOWISH GREEN
ND4	8-719-045-49	s	LED GL8E03D, YELLOWISH GREEN
ND5	8-719-045-49	s	LED GL8E03D, YELLOWISH GREEN
ND6	8-719-045-49	s	LED GL8E03D, YELLOWISH GREEN
R1	1-216-675-11	s	METAL, CHIP 10K 0.5% 1/10W
R10	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R11	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W
R12	1-216-651-11	s	METAL, CHIP 1K 0.5% 1/10W

VR-182 BOARD

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-650-035-11	o	PRINTED CIRCUIT BOARD, VR-182
CN21	1-506-480-11	s	CONNECTOR, 15P, MALE
RV1	1-467-377-11	s	ENCODER, ROTARY
RV2	1-467-377-11	s	ENCODER, ROTARY
RV3	1-467-377-11	s	ENCODER, ROTARY
RV4	1-467-377-11	s	ENCODER, ROTARY
RV5	1-467-377-11	s	ENCODER, ROTARY
RV6	1-467-377-11	s	ENCODER, ROTARY

FRAME

Ref. No. or Q'ty	Part No.	SP	Description
1pc	1-466-182-11	s	ENCODER, ROTARY (MAGNETIC)
1pc	⚠1-413-769-11	s	REGULATOR, SWITCHING MRW-150
	Include in the following part.		
	⚠1-532-826-11	s	FUSE 2.5A 250V
6pcs	1-764-201-11	s	WIRE, FLEXIBLE CARD 15P
1pc	1-952-559-11	o	HARNESS, SUB VOLUME
	Include in the following connectors. CN21 (to KY-308 board) CN21 (to VR-182 board)		
1pc	⚠1-952-562-14	o	HARNESS, SUB AC (1)
	To Switching Regulator Include in the following parts.		
	⚠1-424-074-12	s	FILTER, NOISE
	⚠1-535-722-11	o	TERMINAL, SOLDERLESS
	1-535-316-11	s	TERMINAL, GROUND (M4)
	⚠1-565-787-21	o	CONTACT, FEMALE AWG20-14
	⚠1-569-595-11	o	CONTACT, FEMALE AWG18-24
	⚠1-750-171-11	o	HOUSING 2P
1pc	1-952-564-11	s	HARNESS, LCD
	Include in the following connector. CN25 (to LCD)		
CN1 (to Switching Regulator)			
	1-562-210-11	o	CONTACT, FEMALE AWG18-22
	1-562-285-11	o	HOUSING 4P
CN13 (to CN-980 board)			
	1-569-193-11	o	CONTACT, FEMALE AWG24-30
	1-569-203-11	o	HOUSING, CONNECTOR 10P
CN14 (to CN-980 board)			
	1-569-193-11	o	CONTACT, FEMALE AWG24-30
	1-569-203-11	o	HOUSING, CONNECTOR 10P
CN24 (to LCD)			
	1-569-193-11	o	CONTACT, FEMALE AWG24-30
	1-569-197-11	o	HOUSING, CONNECTOR 4P
CN83 (to KY-307 board)			
	1-569-193-11	o	CONTACT, FEMALE AWG24-30
	1-569-203-11	o	HOUSING, CONNECTOR 10P
CN84 (to KY-307 board)			
	1-569-193-11	o	CONTACT, FEMALE AWG24-30
	1-569-203-11	o	HOUSING, CONNECTOR 10P
CP51 (to KY-307 board)			
	1-535-243-21	o	CONTACT, FEMALE AWG22-28
	1-561-148-00	o	HOUSING 4P

4-4. SUPPLIED ACCESSORIES

SUPPLIED ACCESSORIES

Ref. No. or Q'ty	Part No.	SP	Description
1pc	⚠1-557-377-11	s	CORD, POWER
1pc	3-179-054-01	o	TOOL, CAP PULL
1pc	3-678-081-01	o	TIP(1),SW